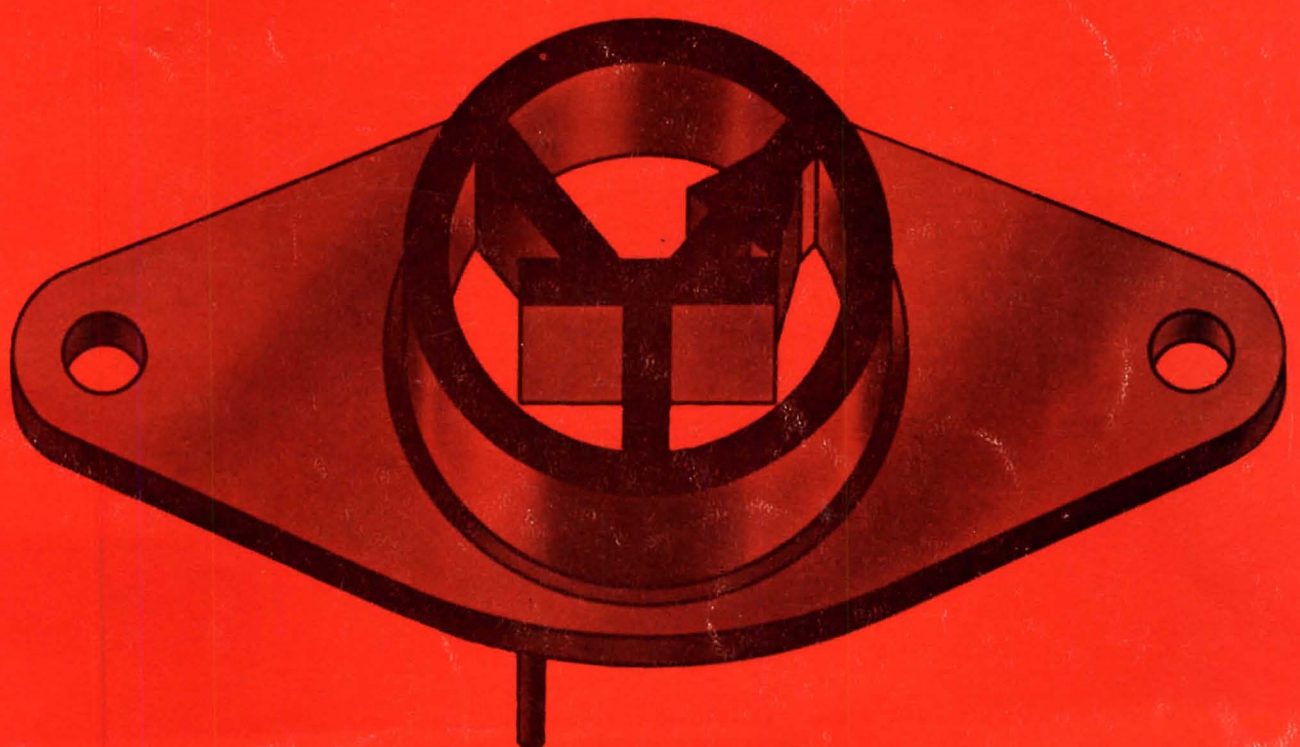
Power Transistor Directory

RCA Solid State



PTD-187/SUN-305C

RCA APPLICATION NOTES FOR POWER TRANSISTORS

ICE-402	"Operating Considerations for RCA Solid State Devices"
AN-3065	"Silicon Transistors for High-Voltage Applications"
AN-3565	"A 100-Watt, 18kHz Inverter Using RCA 2N5202 Silicon Power Transistors"
AN-4509	"Compact 5-Volt Power Supplies Using High-Voltage Power Transistors"
AN-4558	"A 60-Watt, 20-Volt Regulated Power Supply Using a Single Pass Transistor"
AN-4753	"Testing for Forward-Bias Second Breakdown in Power Transistors"
AN-4612	"Thermal-Cycling Rating System for Silicon Power Transistors"
AN-4673	"A 750-Watt Three-Phase Frequency Converter"
AN-4783	"Thermal-Cycling Ratings of Power Transistors"
AN-6145	"Test Set for Nondestructive Safe-Area Measurements"
AN-6163	"Measurements of Power-Transistor Thermal-Cycling Capability"
AN-6195	"A Switching Regulator Using RCA P-N-P Power Darlington Transistors"
AN-6215	"Interpretation of Voltage Ratings"
AN-6249	"Real-Time Controls of Silicon Power-Transistor Reliability"
AN-6272	"Characteristics of RCA Monolithic Power Darlingtons"
AN-6281	"Accurate Measurement of Substaining Voltage of Power Transistors-A Pulsed-Breakdown Test Set"
AN-6297	"Biasing Circuit for the Output Stage of a Power Transistor - The V_{BE} Multiplier"
AN-6320	"Radiation Hardness Capability of RCA Silicon Power Transistors"

This edition of the Power Transistor Directory has been completely revised to reflect new product programs, as well as new product data. The product matrices for hometaxial-base, epitaxial-base, high-speed-switching, monolithic Darlington, and high-voltage types have been up-dated and arranged in order of the pellet size for each transistor family. Furthermore, the product family classifications have been expanded to include the latest commercial RCA power transistors.

The chart of power types for audio-frequency linear amplifiers, shows up-to-date audio-circuit designs available from RCA Solid State. In addition, the Index to RCA Power Transistors has been expanded.

This edition, which replaces the power Transistor Directory PTD-187D/SUN 305B, dated 9-74 is part of a continuing effort to keep you informed as to RCA's "state-of-the-art" in the silicon power transistor field.

Contents

Index of RCA Transistor Families

Developmental type devices or materials are intended for engineering evaluation. The type designation and data are subject to change unless otherwise arranged. No obligations are assumed for notice of change or future manufacture of these devices or materials.

When incorporating RCA Solid State Devices in equipment, it is recommended that the designer refer to "Operating Considerations for RCA Solid State Devices", Form No. 1CE-402, available on request.

LS/5K/367/475

Printed in England/4-75

I_C to 80 A . . . P_T to 300 W . . . V_{CE} to 170 V
HOMETAXIAL-BASE N-P-N POWER TYPES

I_c = 1.5 A max. P_T = 8.75 W max. (TO-39)*	I_c = 1.5 A max. P_T = 8.75 W max. (TO-39)*	I_c = 3.5 A max. P_T = 10 W max. (TO-39)*	I_c = 4 A max. P_T = 50 W max. (TO-66)**	I_c = 4 A max. P_T = 36 W max. VERSAWATT (TO-220)	I_c = 3 A max. P_T = 50 W max. (TO-66)**	I_c = 3 A max. P_T = 36 W max. VERSAWATT (TO-220)	I_c = 7 A max. P_T = 50 W max. VERSAWATT (TO-220)	I_c = 15 A max. P_T = 150 W max. (TO-3)	I_c = 16 A max. P_T = 75 W max. VERSAWATT (TO-220)	I_c = 10 A max. P_T = 150 W max. (TO-3)	I_c = 30 A max. P_T = 220 W max. (TO-3)	I_c = 16 A max. P_T = 250 W max. (TO-3)	I_c = 80 A max. P_T = 300 W max. (Modified TO-3)
90 x 90▲	90 x 90	90 x 90	130 x 130	130 x 130	130 x 130	130 x 130	150 x 150	180 x 180	180 x 180	180 x 180	250 x 250	250 x 250	380 x 380
Family Designation													
2N1482	40349	2N5786	2N3054	2N5298	2N3441	2N6478	2N5496	2N3055	2N6103	2N3442	3771	2N3773	2N5578
40347 $V_{CEV(sus)}$ = 60 V h_{FE} = 25-100 @ 450 mA f_T = 1.5 MHz typ. File No. 88 E	**40349** $V_{CEV(sus)}$ = 160 V h_{FE} = 30-125 @ 150 mA f_T = 1.5 MHz typ. File No. 88 E	**2N5786** $V_{CER(sus)}$ = 45 V h_{FE} = 20-100 @ 1.6 A f_T = 1 MHz min. CT File No. 413 E	**40250** $V_{CEV(sus)}$ = 50 V h_{FE} = 25-100 @ 1.5 A f_T = 1.2 MHz typ. P_T = 29 W CT File No. 112	**2N5295 2N5296** $V_{CER(sus)}$ = 50 V h_{FE} = 30-120 @ 1 A f_T = 0.8 MHz min. CT File No. 322	**2N6263** $V_{CER(sus)}$ = 130 V h_{FE} = 20-100 @ 0.5 A f_T = 1.2 MHz typ. P_T = 20 W File No. 529	**2N6477** $V_{CER(sus)}$=130V h_{FE}=20-100 @ 1 A f_T=0.8 MHz min. File No.680	**2N5491 2N5490** $V_{CER(sus)}$ = 50 V h_{FE} = 20-100 @ 2 A f_T = 0.8 MHz min. CT File No. 353	**2N6371** $V_{CEV(sus)}$ = 50 V h_{FE} = 15-60 @ 8 A f_T = 1 MHz typ. P_T = 117 W CT File No. 607	**2N6102 2N6103** $V_{CER(sus)}$ = 45 V h_{FE} = 15-60 @ 8 A f_T = 0.8 MHz min. I_c = 16 A max. File No. 485	**2N4347** $V_{CEV(sus)}$ = 140 V h_{FE} = 15-60 @ 2 A f_T = 0.8 MHz typ. P_T = 100 W CT File No. 528	**2N6257** $V_{CER(sus)}$ = 45 V h_{FE} = 15-75 @ 8 A f_T = 0.6 MHz min. P_T = 150 W I_c = 20 A File No. 525	**2N4348** $V_{CEV(sus)}$ = 140 V h_{FE} = 15-60 @ 5 A f_T = 0.7 MHz typ. P_T = 120 W I_c = 10 A CT File No. 526	**2N5575** $V_{CEO(sus)}$ = 50 V h_{FE} = 10-40 @ 60 A f_T = 0.4 MHz min. File No. 359
40348 $V_{CEV(sus)}$ = 90 V h_{FE} = 30-125 @ 300 mA f_T = 1.5 MHz typ. 88 E		**2N5785** $V_{CER(sus)}$ = 65 V h_{FE} = 20-100 @ 1.2 A f_T = 1 MHz min. CT 413 E	**2N6260** $V_{CEV(sus)}$ = 50 V h_{FE} = 20-100 @ 1.5 A f_T = 0.8 MHz min. P_T = 29 W 527	**2N5297 2N5298** $V_{CER(sus)}$ = 70 V h_{FE} = 20-80 @ 1.5 A f_T = 0.8 MHz min CT 322	**2N3441** $V_{CER(sus)}$ = 150 V h_{FE} = 25-100 @ 0.5 A f_T = 1.2 MHz typ. P_T = 25 W CT 529	**2N6478** $V_{CER(sus)}$=150V h_{FE}=25-100 @ 1A f_T=0.8 MHz min. 680	**2N5495 2N5494** $V_{CER(sus)}$ = 50 V h_{FE} = 20-100 @ 3 A f_T = 0.8 MHz min. CT 353	**2N6253** $V_{CER(sus)}$ = 55 V h_{FE} = 20-70 @ 3 A f_T = 0.8 MHz min. P_T = 115 W 524	**2N6098 2N6099** $V_{CER(sus)}$ = 65 V h_{FE} = 20-80 @ 4 A f_T = 0.8 MHz min I_c = 10 A max. 485	**2N3442** $V_{CEV(sus)}$ = 160 V h_{FE} = 20-70 @ 3 A f_T = 0.8 MHz typ. P_T = 117 W 528	**2N3771** $V_{CER(sus)}$ = 45 V h_{FE} = 15-60 @ 15 A f_T = 0.8 MHz min. P_T = 150 W I_c = 30 A 525	**2N3773** $V_{CEV(sus)}$ = 160 V h_{FE} = 15-60 @ 8 A f_T = 0.7 MHz typ. P_T = 150 W I_c = 16 A 526	**2N5578** $V_{CEO(sus)}$ = 70 V h_{FE} = 10-40 @ 40 A f_T = 0.4 MHz min 359
		2N5784 $V_{CER(sus)}$ = 80 V h_{FE} = 20-100 @ 1 A f_T = 1 MHz min. CT 413 E	**BDY 71 2N3054** $V_{CER(sus)}$ = 60 V h_{FE} = 80-200 @ 0.5 A f_T = 0.8 MHz min. P_T = 25 W CT 527	**2N5293 2N5294** $V_{CER(sus)}$ = 75 V h_{FE} = 30-120 @ 0.5 A f_T = 0.8 MHz min. CT 322	**2N6264** $V_{CER(sus)}$ = 170 V h_{FE} = 20-60 @ 1 A f_T = 1.2 MHz typ. P_T = 50 W 529		**2N5493 2N5492** $V_{CER(sus)}$ = 65 V h_{FE} = 20-100 @ 2.5 A f_T = 0.8 MHz min CT 353	**2N3055** $V_{CER(sus)}$ = 70 V h_{FE} = 20-70 @ 4 A f_T = 0.8 MHz min. P_T = 115 W CT 524	**2N6100 2N6101** $V_{CER(sus)}$ = 75 V h_{FE} = 20-80 @ 5 A f_T = 0.8 MHz min I_c = 10 A max. 485	**2N6262** $V_{CEV(sus)}$ = 170 V h_{FE} = 20-70 @ 3 A f_T = 0.8 MHz min. P_T = 150 W 528	**2N3772** $V_{CER(sus)}$ = 70 V h_{FE} = 15-60 @ 10 A f_T = 0.8 MHz min P_T = 150 W CT 525	**2N6259** $V_{CER(sus)}$ = 160 V h_{FE} = 15-60 @ 8 A f_T = 0.6 MHz min. P_T = 250 W I_c = 16 A 526	
			2N6261 $V_{CER(sus)}$ = 85 V h_{FE} = 25-100 @ 1.5 A f_T = 0.8 MHz min. P_T = 50 W 527				**2N5497 2N5496** $V_{CER(sus)}$ = 80 V h_{FE} = 20-100 @ 3.5 A f_T = 0.8 MHz min CT 353	**2N6254** $V_{CER(sus)}$ = 85 V h_{FE} = 20-70 @ 5 A f_T = 0.8 MHz min. P_T = 150 W 524	**BD278** $V_{CER(sus)}$=55V h_{FE}=15-75 @ 4A f_T=0.8 MHz min. I_c=10 A max. 668		**BDY29** $V_{CER(sus)}$ = 85 V h_{FE} = 15-60 @ 15 A P_T = 220 W	**BDY37** $V_{CER(sus)}$ = 150 V h_{FE} = 15-60 @ 8 A P_T = 150 W	
									BD278A $V_{CER(sus)}$ = 55 V h_{FE} = 30 min @ 2 A 668				

▲Pellet size—values shown are edge dimensions in thousands-of-an-inch (mils)

*Available with:
a. flange for easy heat sinking $R\theta_{JC}$ = 15° C/W
b. free-air radiator $R\theta_{JA}$ = 40-50° C/W

**Available with free-air radiator $R\theta_{JA}$ = 30° C/W

File No. (e.g. File No. 88E), where shown, relates to the data bulletin.

CT—Complementary Type available, see matrix on Complementary-Pair Power Types.

EPITAXIAL-BASE N-P-N & P-N-P POWER TYPES

I_C to 15 A . . . P_T to 200 W . . . V_{CE} to 125 V

I_c = −3.5 max. P_T = 10 W max. (TO-39)	I_c = 6 A max. P_T = 40 W max. (TO-66)**	I_c = −6 A max. P_T = 40 W max. (TO-66)**	I_c = 7 A max. P_T = 40 W max. VERSAWATT (TO-220)	I_c = −7 A max. P_T = 40 W max. VERSAWATT (TO-220)	I_c = 15 A max. P_T = 125 W max. (TO-3)	I_c = −15 A max. P_T = 125 W max. (TO-3)	I_c = 15 A max. P_T = 75 W max. VERSAWATT (TO-220)	I_c = −15 A max. P_T = 75 W max. VERSAWATT (TO-220)
90 x 90▲	90 x 90	90 x 90	90 x 90	90 x 90	150 x 150	150 x 150	150 x 150	150 x 150
Family Designation								
2N5781 [P-N-P]	**2N6372** [N-P-N]	**2N5954** [P-N-P]	**2N6292** [N-P-N]	**2N6107** [P-N-P]	**2N6472** [N-P-N]	**2N6248** [P-N-P]	**2N6488** [N-P-N]	**2N6491** [P-N-P]
2N5783 $V_{CER(SUS)}$ = −45 V h_{FE} = 20-100 @ −1.6 A f_T = 8 MHz min. CT File No. 413E	**2N6374** $V_{CER(SUS)}$ = 45 V h_{FE} = 20-100 @ 3 A f_T = 4 MHz min. File No. 675	**2N5956** $V_{CER(SUS)}$ = −45 V h_{FE} = 20-100 @ −3 A f_T = 5 MHz min. CT File No. 675	**2N6288** **2N6289** $V_{CER(SUS)}$ = 40 V h_{FE} = 30-150 @ 3 A f_T = 4 MHz min. File No. 676	**2N6110** **2N6111** $V_{CER(SUS)}$ = −40 V h_{FE} = 30-150 @ −3 A f_T = 10 MHz min. CT File No. 676	**2N6470** $V_{CER(sus)}$=45V h_{FE}=20-150 @ 5 A f_T=5 MHz typ. File No. 677	**2N6469** $V_{CER(sus)}$= -45V h_{FE}=20-150 @ -5A f_T=6 MHz min. CT File No. 677	**2N6486** $V_{CER(sus)}$= 50V h_{FE}=20-150 @ 5 A f_T= 5 MHz typ. File No. 678	**2N6489** $V_{CER(sus)}$= -50V h_{FE}=20-150 @ -5A f_T= 5 MHz typ. File No. 678
2N5782 $V_{CER(SUS)}$ = −65 V h_{FE} = 20-100 @ −1.2 A f_T = 8 MHz min. CT 413E	**2N6373** $V_{CER(SUS)}$ = 65 V h_{FE} = 20-100 @ 2.5 A f_T = 4 MHz min. 675	**2N5955** $V_{CER(SUS)}$ = −65 V h_{FE} = 20-100 @ −2.5 A f_T = 5 MHz min. CT 675	**2N6290** **2N6291** $V_{CER(SUS)}$ = 60 V h_{FE} = 30-150 @ 2.5 A f_T = 4 MHz min. 676	**2N6108** **2N6109** $V_{CER(SUS)}$ = −60 V h_{FE} = 30-150 @ −2.5 A f_T = 10 MHz min. CT 676	**2N6471** $V_{CER(sus)}$=65V h_{FE}=20-150 @ 5 A f_T= 5MHz typ. 677	**2N6246** $V_{CER(SUS)}$ = −65 V h_{FE} = 20-150 @ −5 A f_T = 6 MHz min. 677	**2N6487** $V_{CER(sus)}$=70V h_{FE}=20-150 @ 5 A f_T= 5 MHz typ. 678	**2N6490** $V_{CER(sus)}$= -70V h_{FE}=20-150 @ -5 A f_T= 5 MHz typ. 678
2N5781 $V_{CER(SUS)}$ = −80 V h_{FE} = 20-100 @ −1 A f_T = 8 MHz min. CT 413E	**2N6372** $V_{CER(SUS)}$ = 85 V h_{FE} = 20-100 @ 2 A f_T = 4 MHz min. 675	**2N5954** $V_{CER(SUS)}$ = −85 V h_{FE} = 20-100 @ −2 A f_T = 5 MHz min. 675	**2N6292** **2N6293** $V_{CER(SUS)}$ = 80 V h_{FE} = 30-150 @ 2 A f_T = 4 MHz min. 676	**2N6106** **2N6107** $V_{CER(SUS)}$ = −80 V h_{FE} = 30-150 @ −2 A f_T = 10 MHz min. CT 676	**2N6472** $V_{CER(sus)}$=85V h_{FE}=20-150 @ 5 A f_T= 5 MHz typ. 677	**2N6247** $V_{CER(SUS)}$ = −85 V h_{FE} = 20-150 @ 5 A f_T = 6 MHz min. CT 677	**2N6488** $V_{CER(sus)}$=90V h_{FE}=20-150 @ 5 A f_T= 5 MHz typ. 678	**2N6491** $V_{CER(sus)}$= -90V h_{FE}= 20-150 @ -5A f_T= 5 MHz typ. 678
			2N6473 $V_{CER(sus)}$=110V h_{FE}=30-150 @ 1.5 A f_T=5 MHz typ. 676	**2N6475** $V_{CER(sus)}$=110V h_{FE}=30-150 @ -1.5 A f_T=5 MHz typ. 676		**2N6248** $V_{CER(SUS)}$ = −105 V h_{FE} = 20-100 @ −5 A f_T = 6 MHz min. CT 677		
			2N6474 $V_{CER(sus)}$=130V h_{FE}=30-150 @ 1 A f_T= 5 MHz typ. 676	**2N6476** $V_{CER(sus)}$=130V h_{FE}=30-150 @ -1 A f_T= 5 MHz typ. 676				

▲Pellet size—values shown are edge dimensions in thousands-of-an-inch (mils).

**Available with free-air radiator $R_{\theta JA}$ = 30° C/W

"TA" designations (e.g. TA8662) in this booklet are Developmental-Type devices.

File No. (e.g. File No. 413E), where shown, relates to the data bulletin.

CT—Complementary Type available, see matrix on Complementary-Pair Power Types.

HIGH-SPEED SWITCHING N-P-N & P-N-P POWER TYPES

f_T to 250 MHz . . . I_C to 60 A . . . P_T to 140 W

I_c = 1 A max. P_T = 5 W max. (TO-39) *	I_c = −1 A max. P_T = 7 W max. (TO-39) *	I_c = 2 A max. P_T = 10 W max. (TO-39) *	I_c = −2 A max. P_T = 10 W max. (TO-39) *	I_c = 2 A max. P_T = 25 W max. (Plastic TO-5)	I_c = −2 A max. P_T = 25 W max. (Plastic TO-5)	I_c = 7 A max. P_T = 35 W max. (TO-66) * *	I_c = 15 A max. P_T = 85 - 117 W max. (Radial)	I_c = 20 A max. P_T = 140 W max. (TO-3)	I_c = 20 A max. P_f = 175W max. (TO-3)	I_c = 25 A max. P_T = 80-125 W max. (TO-63)	I_c = 30 A max. P_T = 140 W max. (TO-3)	I_c = 50 A max. P_T = 140 W max (Modified TO-3)
30 x 30▲	30 x 30	42 x 42	42 x 42	42 x 42	42 x 42	103 x 103	155 x 155	180 x 180	146 x 183	215 x 222	220 x 220	220 x 220 [2 CHIPS]
Family Designation												
2N2102 [N-P-N]	**2N4036 [P-N-P]**	**2N5320 [N-P-N]**	**2N5322 [P-N-P]**	**2N6178 [N-P-N]**	**2N6180 [P-N-P]**	**2N3879 [N-P-N]**	**2N6482 [N-P-N]**	**2N6354 2N5038 [N-P-N]**	**41012 [N-P-N]**	**2N3263 [N-P-N]**	**2N5672 [N-P-N]**	**2N6033 [N-P-N]**
2N3053 $V_{CER}(SUS)$ = 50 V h_{FE} = 50-250 @ 150 mA f_T = 100 MHz min. CT File No. 432E	**2N4037** $V_{CER}(SUS)$ = −60 V h_{FE} = 50-250 @ 150 mA f_T = 60 MHz min. CT File No. 216E	**2N5321** $V_{CER}(SUS)$ = 65 V h_{FE} = 40-250 @ 500 mA f_T = 50 MHz min. t_{on} = 80 ns max. t_{off} = 800 ns max. CT File No. 325E	**2N5323** $V_{CER}(SUS)$ = −65 V h_{FE} = 40-250 @ −500 mA f_T = 50 MHz min. CT File No. 325E	**2N6179** "Plastic 2N5321" $V_{CER}(SUS)$ = 65 V h_{FE} = 40-250 @ 500 mA f_T = 50 MHz min. t_{on} = 80 ns max. t_{off} = 800 ns max. CT File No. 562	**2N6181** "Plastic 2N5323" $V_{CER}(SUS)$ = −65 V h_{FE} = 40-250 @ −500 mA f_T = 50 MHz min. CT File No. 562	**2N3878‡** $V_{CER}(SUS)$ = 60 V h_{FE} = 20 min. @ 4 A h_{FE} = 50-200 @ 0.5 A f_T = 60 MHz min. t_r = 400 ns max. t_f = 400 ns max. File No. 766	**2N6479** (Isolated Collector) **2N6481** (Non Isolated Coll.) $V_{CER}(sus)$ = 80V h_{FE} = 20 min. @ 12 A f_T = 100 MHz typ. Radiation Hard File No. 702	**2N5039** $V_{CER}(SUS)$ = 95 V h_{FE} = 20 min @ 10 A h_{FE} = 30-250 @ 2 A f_T 60 MHz min t_{on} = 0.5 µs max. t_{off} = 2 µs max File No. 698	**41012** P_T = 175 W I_c = 30 A peak $V_{CEO}(sus)$ = 80 V h_{FE} = 20-60 @ 10 A File No. 660	**2N3266 2N3264■** $V_{CER}(SUS)$ = 80 V h_{FE} = 20-80 @ 15 A f_T 20 MHz min t_{on} = 0.5 µs max t_{off} = 2 µs max File No. 54	**2N5671** $V_{CER}(SUS)$ = 110 V h_{FE} = 20 min. @ 20 A h_{FE} = 20-100 @ 15 A f_T 50 MHz min t_{on} = 0.5 µs max t_{off} = 2 µs max File No. 383	**2N6032** $V_{CER}(SUS)$ = 110 V h_{FE} = 10-50 @ 50 A f_T = 50 MHz min t_r = 1 µs max t_f = 0.5 µs max File No. 462
2N2102 $V_{CER}(SUS)$ = 80 V h_{FE} = 40-120 @ 150 mA f_T = 120 MHz min. CT 106E	**2N4036** $V_{CER}(SUS)$ = −85 V h_{FE} = 40-140 @ 150 mA f_T = 60 MHz min. CT 216E	**2N5320** $V_{CER}(SUS)$ = 90 V h_{FE} = 30-130 @ 500 mA f_T = 50 MHz min. t_{on} = 80 ns max. t_{off} = 800 ns max. CT 325E	**2N5322** $V_{CER}(SUS)$ = −90 V h_{FE} = 30-130 @−500 mA h_{FE} = 10 min. @ −1 A f_T = 50 MHz min. CT 325E	**2N6178** "Plastic 2N5320" $V_{CER}(SUS)$ = 90 V h_{FE} = 30-130 @ 500 mA f_T = 50 MHz min. t_{on} = 80 ns max. t_{off} = 800 ns max. CT 562	**2N6180** "Plastic 2N5322" $V_{CER}(SUS)$ = −90V h_{FE} = 30-130 @ −500 mA h_{FE} = 10 min. @ −1 A f_T = 50 MHz min. CT 562	**2N3879** $V_{CER}(SUS)$ = 90 V h_{FE} = 40 min. @ 0.5A h_{FE} = 20-80 @ 4 A f_T = 60 MHz min. t_r = 400 ns max. t_f = 400 ns max. 766	**2N6480** (Isolated Collector) **2N6482** (Non Isolated Coll.) $V_{CER}(sus)$ = 80V h_{FE} = 20 min. @ 12A f_T = 100 MHz typ. Radiation Hard 702	**2N5038** $V_{CER}(SUS)$ = 110 V h_{FE} = 20 min. @ 12 A h_{FE} = 50-250 @ 2 A f_T = 60 MHz min t_{on} = 0.5 µs max. t_{off} = 2 µs max. 698	**41013** P_T = 175 W I_c = 30A peak $V_{CEO}(sus)$ = 125 V h_{FE} = 20-60 @ 10A 660	**2N3265 2N3263■** $V_{CER}(SUS)$ = 110 V h_{FE} = 25-75 @ 15 A f_T = 20 MHz min t_{on} = 0.5 µs max t_{off} = 2 µs max 54	**2N5672** $V_{CER}(SUS)$ = 140 V h_{FE} = 20 min. @ 20 A h_{FE} = 20-100 @ 15 A f_T = 50 MHz min t_{on} = 0.5 µs max t_{off} = 2 µs max 383	**2N6033** $V_{CER}(SUS)$ = 140 V h_{FE} = 10-50 @ 40 A f_T = 50 MHz min t_r = 1 µs max t_f = 0.5 µs max 462
	2N4314 $V_{CER}(SUS)$ = −85 V h_{FE} = 50-250 @ 150 mA f_T = 60 MHz min. 216E					**2N5202** $V_{CER}(SUS)$ = 75 V h_{FE} = 10-100 @ 4 A f_T = 60 MHz min. t_r = 400 ns max. t_f = 400 ns max. 766		**2N6354** $V_{CER}(sus)$ = 130 V h_{FE} = 20-150 @ 5 A h_{FE} = 10-100 @ 10 A f_T = 80 MHz min t_r = 0.3 µs max. t_f = 0.2 µs max. I_c = 12 A peak 582				
						2N6500 $V_{CER}(SUS)$ = 110 V h_{FE} = 15-60 @ 3 A f_T = 60 MHz min t_r = 400 ns max t_f = 500 ns max 766		**2N6496** $V_{CER}(sus)$ = 130V h_{FE} = 12-100 @ 8 A f_T = 50 MHz min. t_r = 0.5 us max. t_f = 0.5 us max. I_c = 30A peak 698				

▲Pellet size--values shown are edge dimensions in thousands of an inch (mils).

* Types available out of this family with
a. flange for easy heat sinking $R_{\theta JC}$ = 15° C/W
b. free-air radiator $R_{\theta JA}$ = 50° C/W

Type available out of this family with free-air radiator $R_{\theta JA}$ = 30° C/W

‡Also available with heat radiator (40375).

■Flat radial lead version.

File No. (e.g. File No. 432), where shown, relates to the data bulletin.

CT—Complementary Type available, see matrix on Complementary Pair Power Types.

HERMETIC

I_C = 8 A max. P_T = 36 W max. (TO-66)	I_C = 8 A max. P_T = 90 W max. (TO-3)	I_C = 8 A max. P_T 100 W max. (TO-3)	I_C = 10 A max. P_T = 100 W max. (TO-3)	I_C = –10A max. P_T = 100 W max. (TO-3)
136 x 136	136 x 136	136 x 136	136 x 136	136 x 136
Family Designation				
2N6337 [N-P-N]	**2N6385** [N-P-N]	**2N6385** [N-P-N]	**2N6385** [N-P-N]	**RCA8350** [P-N-P]
2N6534 V_{CEO} = 80V h_{FE} = 1000 min @ 5 A t_{on} = 1.5 µs typ t_f = 4 µs typ t_s = 2 µs typ	**1000** $V_{CEO(sus)}$ = 60 V h_{FE} = 1000 min. @ 3 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. File No. 594	**2N6055** $V_{CEO(sus)}$ = 60 V h_{FE} = 750 min. @ 4 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. File No. 563	**2N6383** $V_{CEO(sus)}$ = 40 V h_{FE} = 1000 min. @ 5 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. File No. 609	**RCA8350** $V_{CER(sus)}$ = –40V h_{FE} = 1000 min. @ –5 A t_{on} = 0.5 µs typ. t_f = 1.2 µs typ. t_s = 1 µs typ.
2N6535 V_{CEO} = 100V h_{FE} = 500 min @ 3 A t_{on} = 1.5 µs typ t_f = 4 µs typ t_s = 2 µs typ	**1001** $V_{CEO(sus)}$ = 80 V h_{FE} = 1000 min @ 3 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. 594	**2N6056** $V_{CEO(sus)}$ = 80 V h_{FE} = 750 min. @ 4 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. 563	**2N6384** $V_{CEO(sus)}$ = 60 V h_{FE} = 1000 min. @ 5 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. 609	**RCA8350A** $V_{CER(sus)}$ = –60V h_{FE} = 1000 min. @ –5 A t_{on} = 0.5 µs typ. t_f = 1.2 µs typ. t_s = 1 µs typ.
2N6536 V_{CEO} = 100V h_{FE} = 1000 min @ 5 A t_{on} = 1.5 µs typ t_f = 4 µs typ t_s = 2 µs typ			**2N6385** $V_{CEO(sus)}$ = 80 V h_{FE} = 1000 min. @ 5 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. 609	**RCA8350B** $V_{CER(sus)}$ = –80V h_{FE} = 1000 min. @ –5 A t_{on} = 0.5 µs typ. t_f = 1.2 µs typ. t_s = 1 µs typ.
2N6537 V_{CEO} = 120V h_{FE} = 1000 min @ 3 A t_{on} = 1.5 µs typ t_f = 4 µs typ t_s = 2 µs typ				

PLASTIC

I_C = 10 A max. P_T = 40 W max. VERSAWATT (TO-220)	I_C = –10A max. P_T = 60 W max. VERSAWATT (TO-220)	I_C = 10 A max. P_T = 70W max. VERSAWATT (TO-220)	I_C = 10 A max. P_T = 70W max. VERSAWATT (TO-220)
136 x 136	136 x 136	136 x 136	136 x 136
2N6388 [N-P-N]	**RCA8203** [P-N-P]	**BDX33** [N-P-N]	**BDX34** [P-N-P]
2N6386 $V_{CEO(sus)}$ = 40 V h_{FE} = 1000 min. @ 3 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. File No. 610	**RCA8203** $V_{CER(sus)}$ = –40V h_{FE} = 1000 min. @ –3 A t_{on} = 0.5 µs typ. t_f = 1.2 µs typ. t_s = 1 µs typ.	**BDX33** $V_{CER(sus)}$ = 45V h_{FE} = 750 min. @ 4 A t_{on} = 1 µs typ t_f = 3 µs typ t_s = 1 µs typ File No. 693	**BDX34** $V_{CER(sus)}$ – 45V h_{FE} = 750 min. @ 4 A t_{on} = 0.5 µs typ t_f = 1.2 µs typ t_s = 1 µs typ File No. 694
2N6387 $V_{CEO(sus)}$ = 60 V h_{FE} = 1000 min. @ 5 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. 610	**RCA8203A** $V_{CER(sus)}$ = –60V h_{FE} = 1000 min. @ –5 A t_{on} = 0.5 µs typ. t_f = 1.2 µs typ. t_s = 1 µs typ.	**BDX33A** $V_{CER(sus)}$ = 60V h_{FE} = 750 min. @ 4 A t_{on} = 1 µ sec typ t_f = 3 µ sec typ t_s = 1 µ sec typ 693	**BDX34A** $V_{CER(sus)}$ – 60V h_{FE} = 750 min. @ 4 A t_{on} = 0.5 µs typ t_f = 1.2 µs typ t_s = 1 µs typ 694
2N6388 $V_{CEO(sus)}$ = 80 V h_{FE} = 1000 min @ 5 A t_{on} = 1 µs typ. t_f = 3 µs typ. t_s = 1 µs typ. 610	**RCA8203B** $V_{CER(sus)}$ = –80V h_{FE} = 1000 min. @ –5 A t_{on} = 0.5 µs typ. t_f = 1.2 µs typ. t_s = 1 µs typ.	**BDX33B** $V_{CER(sus)}$ = 80V h_{FE} = 750 min. @ 3 A t_{on} = 1 µ sec typ t_f = 3 µs typ t_s = 1 µs typ 693	**BDX34B** $V_{CER(sus)}$ – 80V h_{FE} = 750 min. @ 3 A t_{on} = 0.5 µs typ t_f = 1.2 µs typ t_s = 1 µs typ 694
		BDX33C $V_{CER(sus)}$ = 100V h_{FE} = 750 min. @ 3 A t_{on} = 1 µ sec typ t_f = 3 µs typ t_s = 1 µs typ 693	**BDX34C** $V_{CER(sus)}$ – 100V h_{FE} = 750 min. @ 3 A t_{on} = 0.5 µs typ t_f = 1.2 µs typ t_s = 1 µs typ 694
		BDX33D $V_{CER(sus)}$ = 120 V h_{FE} = 750 min. @ 3 A t_{on} = 1 µs typ t_f = 3 µs typ t_s = 1 µs typ 693	

▲Pellet size–values shown are edge dimensions in thousands-of-an-inch (mils).

"TA" designations (e.g. TA8351) in this booklet are Developmental-Type devices.

File No. (e.g. File No. 594), where shown, relates to data bulletin.

HIGH-VOLTAGE N-P-N & P-N-P POWER TYPES

I_C to 30 A . . . f_T to 20 MHz . . . P_T to 175 W

I_c = 1 A max. P_T = 20 W max. (Plastic TO-5)	I_c = 1 A max. P_T = 10 W max. (TO-39)*	I_c = −1 A max. P_T = 10 W max. (TO-39)*	I_c peak = 5 A P_T = 35 W max. (TO-66)		I_c peak = −5 A P_T = 35 W max. (TO-66)		I_c = 10 A peak P_T = 45 W max. (TO-66)**	I_c = 10 A peak P_T = 125 W max. (TO-3)
32 x 32▲	42 x 42	42 x 42	103 x 103		124 x 124		130 x 130	130 x 130
Family Designation								
2N6177 [N-P-N]	**2N3439** [N-P-N]	**2N5415** [P-N-P]	**2N3585** [N-P-N]		**2N6213** [P-N-P]		**2N6079** [N-P-N]	**2N5840** [N-P-N]
2N6175 "Plastic 2N3440" $V_{CER(sus)}$ = 300 V h_{FE} = 30-190 @ 20 mA f_T = 20 MHz min. CT File No. 508 E	**2N3440** $V_{CER(sus)}$ = 300 V h_{FE} = 40-160 @ 20 mA f_T 15 MHz min. CT File No. 64 E	**2N5415** $V_{CEO(sus)}$ = −200 V h_{FE} = 30-150 @ −50 mA f_T = 15 MHz min. CT File No. 336 E	**BUX67** $V_{CER(sus)}$ = 175V h_{FE} = 10 - 150 @ 1 A f_T = 15MHz 871	**2N3583** $V_{CER(sus)}$ = 250 V h_{FE} = 40 min. @ 100 mA h_{FE} 10 min. @ 1 A f_T = 15 MHz min. File No. 138	BUX66 $V_{CER(sus)}$ = −175V h_{FE} = 10 - 150 @ -1 A f_T = 15MHz 870	**2N6211** $V_{CER(sus)}$ = −250 V h_{FE} = 10-100 @ −1 A f_T = 20 MHz min. File No. 507	**2N6078** $V_{CER(sus)}$ = 275 V h_{FE} = 12-70 @ 1.2A t_r = 0.3 µs typ. t_f = 0.3 µs typ. File No. 492	**RCA 410#** $V_{CEO(sus)}$ = 200 V h_{FE} = 30-90 @ 1 A t_r = 0.35 µs typ. t_f = 0.15 µs typ. File No. 509
2N6176 $V_{CER(sus)}$ = 350 V h_{FE} = 30-150 @ 20 mA f_T = 20 MHz min. CT 508 E	**2N3439** $V_{CER(sus)}$ = 400 V h_{FE} = 40-160 @ 20 mA f_T = 15 MHz min. CT 64 E	**2N5416** $V_{CER(sus)}$ = −350 V h_{FE} = 30-120 @ −50 mA f_T = 15 MHz min. CT 336 E	**BUX67A** $V_{CER(sus)}$ = 275 V h_{FE} = 10 - 150 @ 1 A f_T = 15MHz 871	**2N3584** $V_{CER(sus)}$ = 300 V h_{FE} = 40 min. @ 100 mA h_{FE} = 25-100 @ 1 A f_T = 15 MHz min. CT 138	BUX66A $V_{CER(sus)}$ = −275V h_{FE} = 10 - 150 @ -1 A f_T = 15MHz 870	**2N6212** $V_{CER(sus)}$ = −325 V h_{FE} = 10-100 @ −1 A f_T = 20 MHz min. CT 507	**2N6077** $V_{CER(sus)}$ = 300 V h_{FE} = 12-70 @ 1.2 A t_r = 0.3 µs typ. t_f = 0.3 µs typ. 492	**RCA 411#** $V_{CEO(sus)}$ = 300 V h_{FE} = 30-90 @ 1 A t_r = 0.35 µs typ. t_f = 0.15 µs typ. 510
2N6177 "Plastic 2N3439" $V_{CER(sus)}$ = 400 V h_{FE} = 30-150 @ 50 mA f_T = 20 MHz min. 508 E	**BF257** $V_{CEO(sus)}$ = 160V h_{FE} = 25 min. @ 30mA	**BFT19,A,B** $V_{CEO(sus)}$ = 200-400V h_{FE} = 25 min. @ 30mA/10V f_T = 15MHz P_T = 5W 683	**BUX67B** $V_{CER(sus)}$ = 325V h_{FE} = 10 - 150 @ 1 A f_T = 15MHz 871	**2N3585** $V_{CER(sus)}$ = 400 V h_{FE} = 40 min. @ 100 mA h_{FE} = 25-100 @ 1 A f_T = 15 MHz min. CT 138	BUX66B $V_{CER(sus)}$ = -325V h_{FE} = 10 - 150 @ - 1 A f_T = 15MHz 870	**2N6213** $V_{CER(sus)}$ = −375 V h_{FE} = 10-100 @ −1 A f_T = 20 MHz min. CT 507	**2N6079** $V_{CER(sus)}$ = 375 V h_{FE} = 12-50 @ 1-2 A t_r = 0.3 µs typ. t_f = 0.3 µs typ. 492	**RCA 413#** $V_{CEO(sus)}$ = 325 V h_{FE} = 20-80 @ 0.5 A t_r = 0.35 µs typ. t_f = 0.15 µs typ. 511
	BF258 $V_{CEO(sus)}$ = 250V h_{FE} = 25 min. @ 30mA	**BFT28,A,B,C** $V_{CER(sus)}$ = 150-300V h_{FE} = 20 min. @ 10mA/10V f_T = 15MHz P_T = 5W 815	**BUX67C** $V_{CER(sus)}$ = 375V h_{FE} = 10 - 150 @ 1 A f_T = 15MHz 871	**2N4240** $V_{CER(sus)}$ = 400 V h_{FE} = 40 min. @ 100 mA h_{FE} = 30-150 @ 750 mA f_T = 15 MHz min. 138	BUX66C $V_{CER(sus)}$ = -375V h_{FE} = 10 - 150 @ - 1 A f_T = 15MHz 870	**2N6214** $V_{CER(sus)}$ = −425 V h_{FE} = 10-100 @ −1 A f_T = 20 MHz min. 507	**40851** $V_{CER(sus)}$ = 375 V h_{FE} = 12 min. @ 1.2 A t_r = 0.3 µs typ. t_f = 0.3 µs typ. 498	**RCA 423#** $V_{CEO(sus)}$ = 325 V h_{FE} = 30-90 @ 1 A t_r = 0.35 µs typ. t_f = 0.15 µs typ. 512
	BF259 $V_{CEO(sus)}$ = 300 V h_{FE} = 25 min. @ 30mA			**40850** $V_{CER(sus)}$ = 400 V h_{FE} = 25 min. @ 750 mA f_T = 15 MHz min. 498				**RCA 431#** $V_{CEO(sus)}$ = 325 V h_{FE} = 15-35 @ 2.5 A t_r = 0.35 µs typ. t_f = 0.4 µs typ. 513

▲Pellet size—values shown are edge dimensions in thousands-of-an-inch (mils)

*Available with:
a. flange for easy heat sinking $R_{\theta JC}$ = 15° C/W
b. free-air radiator $R_{\theta JA}$ = 45° C/W

**Available with free-air radiator $R_{\theta JA}$ = 30° C/W

■Type with a factory-attached heat clip

File No. (e.g. File No 508 E), where shown, relates to the data bulletin.

CT—Complementary Type available, see matrix on Complementary-Pair Power Types.

#For new equipment design only—not recommended for retrofit.

HIGH-VOLTAGE N-P-N & P-N-P POWER TYPES

I_C to 30 A . . . f_T to 20 MHz . . . P_T to 175 W

T.V. Application	I_C = 10 A, P_T = 75 - 100 W Switching	I_C = 10 A, P_T = 75 - 100 W Linear	I_C peak = 10 A, P_T = 100 W (TO-3)	I_C peak = 12 A, P_T = 80 W	I_C peak = 12 A, P_T = 120 W	I_C peak = 12 A, P_T = 120 W (TO-3)	I_C = 15 A, P_T = 110 W max. (TO-3)	I_C = 30 A, P_T = 175 W max. (TO-3) Switching	I_C peak = 30 A, P_T = 150 W (TO-3)
130 x 130	**130 x 130**	**130 x 130**	**180 x 180**	**180 x 180**		**180 x 180**	**210 x 210**	**260 x 260**	**260 x 260**
BU106 [N-P-N]	**2N5840** [N-P-N]	**2N5240** [N-P-N]	**TA8764** [N-P-N]	**2N6510** [N-P-N]		**TA8900** [N-P-N]	**2N5805** [N-P-N]	**2N6251** [N-P-N]	**2N6251** [N-P-N]
BU106 $V_{CEO(sus)}$ = 140V h_{FE} @ 4 A = 8 min. t_{off} = 1.5 µs min. P_T = 75W File No. 716	**2N5838** $V_{CER(sus)}$ = 275 V h_{FE} = 20 min. @ 0.5 A h_{FE} = 8-40 @ 3 A t_r = 0.8 µs typ. t_f = 0.4 µs typ. File No. 410	**2N5239** $V_{CER(sus)}$ = 250 V h_{FE} = 20 min. @ 2 A h_{FE} = 20-80 @ 0.4 A f_T = 5 MHz min. File No. 321	**TA8764A** V_{CES} = 750 V h_{FE} = 5 min. @ 6 A	**BUX18** V_{CER} = 250 V h_{FE} = 7 @ 6 A t_s = 1.5 µs t_f = 0.4 µs 862	**2N6510** V_{CER} = 250 V h_{FE} = 10 min @ 3 A f_T = 3MHz min 848	**TA8900A** V_{CER} = 450 V h_{FE} = 12 @ 3 A t_s = 1.5 µs t_f = 0.4 µs	**2N5804** $V_{CER(sus)}$ = 300 V h_{FE} = 25-250 @ 0.5 A h_{FE} = 10-100 @ 5 A t_r = 0.4 µs typ. t_f = 1.2 µs typ. File No. 407	**2N6249** $V_{CER(sus)}$ = 225 V h_{FE} = 10-50 @ 10 A t_r = 0.8 µs typ. t_f = 0.5 µs typ. File No. 523	**BUX17** V_{CER} = 175 V h_{FE} = 20 min @ 4 A t_s = 3.5 µs t_f = 1 µs 818
BU120 $V_{CEO(sus)}$ = 200V h_{FE} @ 1A = 30-100 f_T = 6 MHz min. P_T = 100W	**2N5839** $V_{CER(sus)}$ = 300 V h_{FE} = 20 min. @ 0.5 A h_{FE} = 10-50 @ 2A t_r = 0.6 µs typ. t_f = 0.35 µs typ. 410	**2N5240** $V_{CER(sus)}$ = 350 V h_{FE} = 20 min. @ 2 A h_{FE} = 20-80 @ 0.4 A f_T = 5 MHz min. 321	**TA8764B** V_{CES} = 900 V h_{FE} = 4.25 @ 8.5 A	**BUX18A** V_{CER} = 325 V h_{FE} = 7 @ 5 A t_s = 1.5 µs t_f = 0.4 µs 862	**2N6511** V_{CER} = 300 V h_{FE} = 10 min @ 4 A f_T = 3 MHz min 848	**TA8900B** V_{CER} = 425 V h_{FE} = 12 @ 3 A t_s = 1.5 µs t_f = 0.4 µs	**2N5805** $V_{CER(sus)}$ = 375 V h_{FE} = 25-250 @ 0.5 A h_{FE} = 10-100 @ 5 A t_r = 0.4 µs typ. t_f = 1.2 µs typ. 407	**2N6250** $V_{CER(sus)}$ = 300 V h_{FE} = 8-50 @ 10 A t_r = 0.8 µs typ. t_f = 0.5 µs typ. 523	**BUX17A** V_{CER} = 275 V h_{FE} = 20 min @ 4 A t_s = 3.5 µs t_f = 1 µs 818
BU126 V_{CES} = 750 V h_{FE} = 15-60 @ 1 A f_T 3.5 MHz P_T = 40 W ▲ (180 x 180)	**2N5840** $V_{CER(sus)}$ = 375 V h_{FE} = 20 min. @ 0.5 A h_{FE} = 10-50 @ 2 A t_r = 0.6 µs typ. t_f = 0.35 µs typ. 410	**BUX16,A,B,C** $V_{CER(sus)}$ = 225-400V h_{FE} @ 4.5 A = 5 min. f_T = 5 MHz min. 800	**TA8764C** V_{CES} = 1000V h_{FE} = 5.45 @ 6 A	**BUX18B** V_{CER} = 375 V h_{FE} = 10 @ 4 A t_s = 1.5 µs t_f = 0.4 µs 862	**2N6512** V_{CER} = 350 V h_{FE} = 10 min @ 4A f_T = 3 MH z min 848		**40853** $V_{CER(sus)}$ = 375 V h_{FE} = 10 min. @ 5 A t_r = 0.4 µs typ. t_f = 1.2 µs typ. 498	**2N6251** $V_{CER(sus)}$ = 375 V h_{FE} = 6-50 @ 10 A t_r = 0.8 µs typ. t_f = 0.5 µs typ. 523	**BUX17B** V_{CER} = 325 V h_{FE} = 15 min @ 4 A t_s = 3.5 µs t_f = 1 µs 818
	40852 $V_{CER(sus)}$ = 375 V h_{FE} = 12 min. @ 1.2 A t_r = 0.5 µs typ. t_f = 0.35 µs typ. 498			**BUX18C** V_{CER} = 425 V h_{FE} = 10 @ 4 A t_s = 1.5 µs t_f = 0.4 µs 862	**2N6513** V_{CER} = 400 V h_{FE} = 10 min @ 4 A f_T = 3 MHz min 848			**40854** $V_{CER(sus)}$ = 325 V h_{FE} = 8 min. @ 10 A t_r = 0.8 µs typ. t_f = 0.5 µs typ. 498	**BUX17C** V_{CER} = 375 C h_{FE} = 15 min @ 4 A t_s = 3.5 µs t_f = 1 µs 818
					2N6514 V_{CER} = 350 V h_{FE} = 10 min @ 5 A f_T = 3 MHz min 848					

▲Pellet size—values shown are edge dimensions in thousands-of-an-inch (mils)

*Available with:
a. flange for easy heat sinking $R_{\theta JC}$ = 15° C/W
b. free-air radiator $R_{\theta JA}$ = 45° C/W

**Available with free-air radiator $R_{\theta JA}$ = 30° C/W

■Type with a factory-attached heat clip
File No. (e.g. File No 508 E), where shown, relates to the data bulletin.

CT—Complementary Type available, see matrix on Complementary-Pair Power Types.

#For new equipment design only—not recommended for retrofit.

COMPLEMENTARY-PAIR POWER TYPES

Hometaxial-Base/Epitaxial-Base

I_C 1.5 to 2 A		I_C = 2.5 A		I_C 3 to 3.5 A		I_C 4 to 6 A		I_C 12 to 17 A	
N-P-N	P-N-P	N-P-N	P-N-P	N-P-N	P-N-P	N-P-N	P-N-P	N-P-N	P-N-P
2N5293 **2N5294** $V_{CER}(SUS)$ = 75 V I_C = 1.5 A VERSAWATT (TO-220) File No. 322	**2N6106** **2N6107** $V_{CER}(SUS)$ = −80 V I_C = −1.5 A VERSAWATT (TO-220) File No.676	**2N5786** $V_{CER}(SUS)$ = 45 V I_C = 2.5 A (TO-39) File No.413E	**2N5783** $V_{CER}(SUS)$ = −45 V I_C = −2.5 A (TO-39) 413E	**2N3054** $V_{CER}(SUS)$ = 60 V I_C = 3 A (TO-66) File No. 527	**2N5955** $V_{CER}(SUS)$ = −65 V I_C = −3 A (TO-66) 675	**2N5495** **2N5494** $V_{CER}(SUS)$ = 50 V I_C = 4 A VERSAWATT (TO-220) File No. 353	**2N6110** **2N6111** $V_{CER}(SUS)$ = −40 V I_C = −4 A VERSAWATT TO-220) File No.676	**2N3055** $V_{CER}(SUS)$ = 70 V I_C = 12 A (TO-3) File No. 524	**2N6247** $V_{CER}(SUS)$ = −90V I_C = −12 A (TO-3) File No.677
2N5295 **2N5296** $V_{CER}(SUS)$ = 50 V I_C = 2 A VERSAWATT (TO-220) 322	**2N6106** **2N6107** $V_{CER}(SUS)$ = −80 V I_C = −2 A VERSAWATT (TO-220) 676	**2N5297** **2N5298** $V_{CER}(SUS)$ = 70 V I_C = 2.5 A VERSAWATT (TO-220) 322	**2N6106** **2N6107** $V_{CER}(SUS)$ = −80 V I_C = −2.5 A VERSAWATT (TO-220) 676	**2N5491** **2N5490** $V_{CER}(SUS)$ = 50 V I_C = 3 A VERSAWATT (TO-220) 353	**2N6106** **2N6107** $V_{CER}(SUS)$ = −80 V I_C = −3 A VERSAWATT (TO-220) 676	**2N4347** $V_{CEV}(SUS)$ = 140 V I_C = 4 A (TO-3) 528	**2N5954**■ $V_{CER}(SUS)$ = −85 V I_C = −4 A (TO-66) 675	**2N4348** $V_{CEV}(SUS)$ = 140 V I_C = 14 A (TO-3) 526	**2N6248** $V_{CER}(SUS)$ = −110 V I_C = −14 A (TO-3) 677
2N3441 $V_{CER}(SUS)$ = 150 V I_C = 2 A (TO-66) 529	**(2N6468)†** $V_{CER}(SUS)$ = −125 V I_C = −2 A (TO-66)	**2N5785** $V_{CER}(SUS)$ = 65 V I_C = 2.5 A (TO-39) 413 E	**2N5782** $V_{CER}(SUS)$ = −65 V I_C = −2.5 A (TO-39) 413 E	**40250** $V_{CER}(SUS)$ = 50 V I_C = 3.5 A (TO-66) 112	**2N5956** $V_{CER}(SUS)$ = −45 V I_C = −3.5 A (TO-66) 435	**2N6371** $V_{CEV}(SUS)$ = 50 V I_C = 6 A (TO-3) 607	**2N5956** $V_{CER}(SUS)$ = −45 V I_C = −6 A (TO-66) 675	**2N3772** $V_{CER}(SUS)$ = 70 V I_C = 17 A (TO-3) 525	**2N6247** $V_{CER}(SUS)$ = −90 V I_C = −17 A (TO-3) 677
		2N5784 $V_{CER}(SUS)$ = 80 V I_C = 2.5 A (TO-39) 413 E	**2N5781** $V_{CER}(SUS)$ = −80 V I_C = −2.5 A (TO-39) 413 E	**2N5493** **2N5492** $V_{CER}(SUS)$ = 65 V I_C = 3.5 A VERSAWATT (TO-220) 353	**2N6108** **2N6109** $V_{CER}(SUS)$ = −60 V I_C = −3.5 A VERSAWATT (TO-220) 676	**2N3055** $V_{CER}(SUS)$ = 70 V I_C = 6 A (TO-3) 524	**2N5955** $V_{CER}(SUS)$ = −65 V I_C = −6 A (TO-66) 675		

■ Or higher voltage type 2N6248.

High-Voltage

I_C = 0.2 A		I_C = 2 A	
N-P-N	P-N-P	N-P-N	P-N-P
2N3440 $V_{CEO}(SUS)$ = 250 V I_C = 0.2 A (TO-39) File No.64E	**2N5415** $V_{CEO}(SUS)$ = −200 V I_C = −0.2 A (TO-39) File No.336E	**2N3584** $V_{CER}(SUS)$ = 350 V I_C = 2 A (TO-66) File No. 138	**2N6212** $V_{CER}(SUS)$ = −325 V I_C = −2 A (TO-66) File No. 507
2N6175 $V_{CER}(SUS)$ = 300 V I_C = 0.2 A (Plastic TO-5) 508 E	**BFT19A** $V_{CER}(sus)$ = −300 V I_C = −0.2 A (TO-39) 683	**2N3585** $V_{CER}(SUS)$ = 400 V I_C = 2 A (TO-66) 138	**2N6213** $V_{CER}(SUS)$ = −375 V I_C = −2 A (TO-66) 507
2N3439 $V_{CEO}(SUS)$ = 350 V I_C = 0.2 A (TO-39) 64 E	**2N5416** $V_{CER}(SUS)$ = −350 V I_C = −0.2 A (TO-39) 336	**BUX67** $V_{CER}(sus)$ = 175V I_C = 2A (TO-66) 871	**BUX66** $V_{CER}(sus)$ = −175V I_C = −2A (TO-66) 870
2N6176 $V_{CER}(SUS)$ = 350 V I_C = 0.2 A (Plastic TO-5) 508 E	**BFT19B** $V_{CER}(SUS)$ = −400V I_C = −0.2 A (TO-39) 683	**BUX67A** $V_{CER}(sus)$ = 275V I_C = 2A (TO-66) 871	**BUX66A** $V_{CER}(sus)$ = −275V I_C = −2A (TO-66) 870
		BUX67B $V_{CER}(sus)$ = 350V I_C = 2A (TO-66) 871	**BUX66B** $V_{CER}(sus)$ = −350V I_C = −2A (TO-66) 870
		BUX67C $V_{CER}(sus)$ = 400V I_C = 2A (TO-66) 871	**BUX66C** $V_{CER}(sus)$ = −400V I_C = −2A (TO-66) 870

Note: The collector current (I_C) value shown is for h_{FE} of 10 min.

High-Speed

I_C = 1 A			
N-P-N	P-N-P	N-P-N	P-N-P
2N3053 $V_{CER}(SUS)$ = 50 V I_C = 1 A (TO-39) File No. 432 E	**2N4037** $V_{CER}(SUS)$ = −60 V I_C = −1 A (TO-39) File No.216E	**2N6179** $V_{CER}(SUS)$ = 65 V I_C = 1 A (Plastic TO-5) File No. 562	**2N6181** $V_{CER}(SUS)$ = −65 V I_C = −1 A (Plastic TO-5) 562
2N2102 $V_{CER}(SUS)$ = 80 V I_C = 1 A (TO-39) 106E	**2N4036** $V_{CER}(SUS)$ = −85 V I_C = −1 A (TO-39) 216 E	**2N6178** $V_{CER}(SUS)$ = 90 V I_C = 1 A (Plastic TO-5) 562	**2N6180** $V_{CER}(SUS)$ = −90 V I_C = −1 A (Plastic TO-5) 562
2N5321 $V_{CER}(SUS)$ = 65 V I_C = 1 A (TO-39) 325 E	**2N5323** $V_{CER}(SUS)$ = −65 V I_C = −1 A (TO-39) 325 E		
2N5320 $V_{CER}(SUS)$ = 90 V I_C = 1 A (TO-39) 325 E	**2N5322** $V_{CER}(SUS)$ = −90 V I_C = −1A (TO-39) 325 E		

File No. (e.g. File No. 322), where shown, relates to data bulletin.

See Epitaxial-Base and Monolithic Darlington Matrices for additional Complementary-Pair Power Types.

PLASTIC-PACKAGED POWER TYPES

I_C = 2 A max. P_T = 25 W max. (Plastic TO-5)	I_C = -2 A max. P_T = 25 W max. (Plastic TO-5)	I_C = 1 A max. P_T = 20 W max. (Plastic TO-5)	I_C = 7 A max. P_T = 40 W max. VERSAWATT (TO-220)	I_C = –7 A max. P_T = 40 W max. VERSAWATT (TO-220)	I_C = 15 A max. P_T = 75 W max. VERSAWATT (TO-220)	I_C = –15 A max. P_T = 75 W max. VERSAWATT (TO-220)	I_C = 4 A max. P_T = 36 W max. VERSAWATT (TO-220)	I_C = 3 A max. P_T = 36 W max. VERSAWATT (TO-220)	I_C = 7 A max. P_T = 50 W max. VERSAWATT (TO-220)	I_C = 16 A max. P_T = 75 W max. VERSAWATT (TO-220)
42 x 42▲	42 x 42	32 x 32	90 x 90	90 x 90	150 x 150	150 x 150	130 x 130	130 x 130	150 x 150	180 x 180
HIGH-SPEED		HIGH-VOLTAGE	EPITAXIAL BASE				HOMETAXIAL BASE			
Family Designation										
2N6178 [N-P-N]	**2N6180** [P-N-P]	**2N6177** [N-P-N]	**2N6292** [N-P-N]	**2N6107** [P-N-P]	**2N6488** [N-P-N]	**2N6491** [P-N-P]	**2N5298** [N-P-N]	**2N6478** [N-P-N]	**2N5496** [N-P-N]	**2N6103** [N-P-N]
2N6179 "Plastic 2N5321" $V_{CER(SUS)}$ = 65 V h_{FE} = 40-250 @ 500 mA f_T = 50 MHz min. CT File No. 562	**2N6181** "Plastic 2N5323" $V_{CER(SUS)}$ = –65 V h_{FE} = 40-250 @ –500 mA f_T = 50 MHz min. CT File No. 562	**2N6175** "Plastic 2N3440" $V_{CER(SUS)}$ = 300 V h_{FE} = 30-190 @ 20 mA f_T = 20 MHz min. CT File No. 508	**2N6288** **2N6289** $V_{CER(SUS)}$ = 40 V h_{FE} = 30-150 @ 3 A f_T = 4 MHz min. File No.676	**2N6110** **2N6111** $V_{CER(SUS)}$ = –40 V h_{FE} = 30-150 @ –3 A f_T = 10 MHz min. CT File No.676	**2N6486** $V_{CER(SUS)}$ = 45 V h_{FE}@ 5 A = 20-150 f_T = 5 MHz typ. File No.678	**2N6489** $V_{CER(SUS)}$ = – 45 V h_{FE}@ 5 A = 20-150 f_T = 5 MHz typ. File No.678	**2N5295** **2N5296** $V_{CER(SUS)}$ = 50 V h_{FE} = 30-120 @ 1 A f_T = 0.8 MHz min. CT File No. 322	**2N6478** $V_{CER(SUS)}$ = 135 V h_{FE} = 20-80 f_T = 1.2 MHz typ. I_C = 3 A max. File No.680	**2N5491** **2N5490** $V_{CER(SUS)}$ = 50 V h_{FE} = 20-100 @ 2 A f_T = 0.8 MHz min. CT File No. 353	**2N6102** **2N6103** $V_{CER(SUS)}$ = 45 V h_{FE} = 15-60 @ 8 A f_T = 0.9 MHz min. I_C = 16 A max. File No. 485
2N6178 "Plastic 2N5320" $V_{CER(SUS)}$ = 90 V h_{FE} = 30-130 @ 500 mA f_T = 50 MHz min. CT 562	**2N6180** "Plastic 2N5322" $V_{CER(SUS)}$ = –90 V h_{FE} = 30-130 @ –500 mA h_{FE} = 10 min. @ –1 A f_T = 50 MHz min. CT 562	**2N6176** $V_{CER(SUS)}$ = 350 V h_{FE} = 30-150 @ 20 mA f_T = 20 MHz min. CT 508E	**2N6290** **2N6291** $V_{CER(SUS)}$ = 60 V h_{FE} = 30-150 @ 2.5 A f_T = 4 MHz min. 676	**2N6108** **2N6109** $V_{CER(SUS)}$ = –60 V h_{FE} = 30-150 @ –2.5 A f_T = 10 MHz min. CT 676	**2N6487** $V_{CER(SUS)}$ = 65 V h_{FE}@ 5 A = 20-150 f_T = 5 MHz typ. 678	**2N6490** $V_{CER(SUS)}$ = –65 V h_{FE}@ 5 A = 20-150 f_T = 5 MHz typ. 678	**2N5297** **2N5298** $V_{CER(SUS)}$ = 70 V h_{FE} = 20-80 @ 1.5 A f_T = 0.8 MHz min. CT 322	**2N6478A** $V_{CER(SUS)}$ = 150 V h_{FE} = 30-120 @ 0.5 A f_T = 1.2 MHz typ I_C = 3 A max. 680	**2N5495** **2N5494** $V_{CER(SUS)}$ = 50 V h_{FE} = 20-100 @ 3 A f_T = 0.8 MHz min. CT 353	**2N6098** **2N6099** $V_{CER(SUS)}$ = 65 V h_{FE} = 20-80 @ 4 A f_T = 0.8 MHz min. I_C = 10 A max. 485
		2N6177 "Plastic 2N3439" $V_{CER(SUS)}$ = 400 V h_{FE} = 40-160 @ 20 mA f_T = 15 MHz min. 508E	**2N6292** **2N6293**■ $V_{CER(SUS)}$ = 80 V h_{FE} = 30-150 @ 2 A f_T = 4 MHz min. 676	**2N6106** **2N6107** $V_{CER(SUS)}$ = –80 V h_{FE} = 30-150 @ –2 A f_T = 10 MHz min. CT 676	**2N6488** $V_{CER(SUS)}$ = 85 V h_{FE}@ 5 A = 20-150 f_T = 5 MHz typ. 678	**2N6491** $V_{CER(SUS)}$ = –85 V h_{FE}@ 5 A = 20-150 f_T = 5 MHz typ. 678	**2N5293** **2N5294** $V_{CER(SUS)}$ = 75 V h_{FE} = 30-120 @ 0.5 A f_T = 0.8 MHz min. CT 322		**2N5493** **2N5492** $V_{CER(SUS)}$ = 65 V h_{FE} = 20-100 @ 2.5 A f_T = 0.8 MHz min. CT 353	**2N6100** **2N6101** $V_{CER(SUS)}$ = 75 V h_{FE} = 20-80 @ 5 A f_T = 0.8 MHz min. I_C = 10 A max. 485
			2N6473 $V_{CER(sus)}$ = 110V h_{FE} = 15-150 @ 1.5A f_T = 5 MHz typ I_C = 4 A max 676	**2N6475** $V_{CER(sus)}$ = –110V h_{FE} = 15-150 @ –1.5A f_T = 5 MHz typ I_C = –4 A max 676					**2N5497** **2N5496** $V_{CER(SUS)}$ = 80 V h_{FE} = 20-100 @ 3.5 A f_T = 0.8 MHz min. CT 353	
			2N6474 $V_{CER(sus)}$ = 130V h_{FE} = 15-150 @ 1.5A f_T = 5 MHz typ I_C = 4 A max 676	**2N6476** $V_{CER(sus)}$ = –130V h_{FE} = 15-150 @ –1.5A f_T = 5 MHz typ I_C = –4 A max 676						

▲Pellet size—values shown are edge dimensions in thousands-of-an-inch (mils).

CT—Complementary Type available, see matrix on Complementary-Pair Power Types.

POWER TRANSISTOR TYPES FOR AUDIO-FREQUENCY LINEAR AMPLIFIERS

Power Output			Circuit	Output Transistors		Class B Driver		Class B Pre-Driver	Class A Pre-Driver	
16Ω	4Ω	(8Ω Imped.)		N-P-N	P-N-P	N-P-N	P-N-P	N-P-N	N-P-N	P-N-P
6.5	18	12W	IC Driving True Comp.	40979 (2N6292)	40980 (2N6111)	-	-	-	-	-
			True Comp.	40816 (2N5495) (2N6269)	40817 (2N6111)	-	40815 (2N4036)	-	-	-
16	45	25W	Comp. Darlington	BDX 33 2N6386	BDX 34 TA8201	-	-	-	40360 (2N2102)	-
			True Comp.	40875 (2N6269)	40876 (2N6111)	40635 (2N2102)	40634 (2N4036)	-	40360 (2N2102)	-
			Quasi-Comp.	40632 (2N5492)	-			-	40360 (2N2102)	-
25	75	40W	True Comp.	40877 (TA8323)	40878 (TA8326)	40635 (2N2102)	40634 (2N4036)	-	40360 (2N2102)	-
	55		Quasi-Comp.	40844 (2N6103)	-			-	40360 (2N2102)	-
50	100	70W	Quasi-Comp.	2N5840	-	40871 (2N6292)	40872 (2N6111)	-	40594 (2N6320)	40595 (2N5322)
40			Quasi-Comp.	40636 (2N3055)	-	40594 (2N5320)	40595 (2N5322)	-	40999 (2N5415)	40999 (2N5415)
80	180W	120W	Quasi-Comp. Paral. out.	(4) 40983's (2N5240)	-	40871 (2N6292)	40872 (2N6111)	-		40987 (2N5416)
130W	300W	200W	Quasi-Comp. Paral. out.	(6) 40988's (2N5240)	-	40988 (2N5240)	-		40986 (2N3439)	40987 (2N5416)

Numbers in brackets indicate number of devices used in the stage.
Type numbers in parentheses indicate the transistor-family designation.

APPLICATION INFORMATION. . .

Power Types [N-P-N & P-N-P] for Inverter/Switching Regulator Service

Frequency Range	Peak Voltage Required	Peak Primary Current Requirement				
		Up to 0.2 A	0.2 to 1 A	1 to 4 A	4 to 20 A	>20 A
60 Hz to 50 kHz	10 to 60V	2N3053 2N4037	2N5321 2N5323 2N6179 2N6181	2N3054 2N5497▲	2N3055 2N3772	-
	60 to 150V	2N1486 2N2102 2N4036	2N1486 2N3441 2N5298 2N5781 2N5784	2N3442 2N3879 2N5293▲ 2N5954●	2N3265 2N3773 2N5039 2N5672 2N6248● 41012 41013	2N5671 2N6032
	150 to 450V	2N3440 2N5416 BFT 19 A,B,C	-	2N3585 2N6212● 40850 40851	2N5805 2N5840 2N6251 410 411 413 423 40852 431 40853 2N6514 40854 BUX 18	-
		BFT 28 A,B,C 2N6177▲				
	Off Line 220V (Rectifier 400–800V)				TA8764 2N5240 TA8900 BUX 16,A,B,C 2N6513 BUX 18,C	

●P-N-P types
▲Plastic-packaged types

$V_{PEAK} = V_{CEX}$ value

V_{PEAK} = 2.2 V (V_{CC}) for push-pull inverters
= 1.1 V (V_{CC}) for bridge inverters
= 1.1 V (Source) for switching regulators

APPLICATION INFORMATION . . .

Power Types [N-P-N & P-N-P] as Pass Transistors for Series Regulator Service

Pass Transistor Conditions	Peak Output Voltage (V)	Regulator Output Current (I_o) — A				
		Up to 0.2	0.2 to 1	1 to 4	4 to 20	> 20
With preregulator $I_c = I_o$ V_{CE} = constant or $\approx 4[V_{CE(sat)}]$ $P_{MAX} \approx 4(I_o)[V_{CE(sat)}]$	10 to 60	[2N2102, 2N4036] 2N1482	[2N5321, 2N5323] [2N6179, 2N6181]	[2N3054, 2N5955] [2N5497, 2N6106]	[2N3055, 2N6247, 2N3771]	2N3772 2N5575
	60 to 150	40349	2N3441	2N3442 2N4347 2N5293	2N3772 2N4348	2N5578
	150 to 400	[2N3440, BFT 19,A,B,C, BFT 28,A,B,C, 2N5415]	[2N3585, 2N6212]	2N5240 BUX 16,A,B,C	2N5805 2N6251	-

Bracket signifies a complementary pair (n-p-n, 2N2102; p-n-p, 2N4036) suitable for symmetrical power-supply circuits.

Power Types for Electrostatic Deflection and Video Output

Bandwidth > 1MHz	
Output Voltage < 60V (Peak-to-Peak)	Output Voltage 60 to 400V (Peak-to-Peak)
2N2102 2N3878 2N4036 2N5320 2N5322*	2N3439 BF 257 BF 258 BF 259 2N3585 2N5416 BFT 19,A,B,C. BFT 28,A,B,C. 2N6177 2N6213 BUX 66,A,B,C BUX 67,A,B,C

* P-N-P Type

MILITARY SPECIFICATION TYPES

Power Transistors

RCA (JAN) Type No.	MIL-Spec. 19500/	RCA(JAN) Type No.	MIL-Spec. 19500/	RCA(JAN) Type No.	MIL-Spec. 19500/	RCA(JAN) Type No.	MIL-Spec 19500/	RCA(JAN) Type No.	MIL-Spec 19500/
2N1479	207	TX2N1485	180	2N3055	407	TX2N3584	384	2N5039	439
2N1480	207	2N1486	180	TX2N3055	407	2N3585	384	TX2N5039	439
2N1481	207	TX2N1486	180	2N3439	368	TX2N3585	384	2N6211	461
2N1482	207	2N1487	208	TX2N3439	368	2N3771	413	TX2N6211	461
2N1483	180	2N1488	208	2N3440	368	TX2N3771	413	2N6212	461
TX2N1483	180	2N1489	208	TX2N3440	368	2N3772	413	TX2N6212	461
2N1484	180	2N1490	208	2N3441	369	TX2N3772	413	2N6213	461
TX2N1484	180	2N2015	248	2N3442	370	2N5038	439	TX2N6213	461
2N1485	180	2N2016	248	2N3584	384	TX2N5038	439		

2N1482 FAMILY [n-p-n] (silicon)

f_T = 1.4 MHz typ; P_T = 8.75 W max

DESCRIPTION

2N TYPES

2N1479● Medium Power DC-to-DC Converter, Inverter
2N1480● Medium Power Chopper, DC and Servo
2N1481● Medium Power Amplifier, Relay and Solenoid
2N1482● Medium Power Actuating Circuits

OTHER TYPES

40347 Low Power Audio Driver
40348 Relay and Solenoid Driver

HIGH-RELIABILITY TYPES

40367 Hi-Rel Version of 2N1482

V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}	I_C A	V_{CE} V	I_{CBO}–μA Temp.–°C 25	150	V_{CB} V	V_{CE}(sat)–V	I_C A	I_B A	V_{BE}–V	I_C A
40	–	60	20-60	0.2	4	10	500	30	1.4	0.2	0.02	3	0.2
55	–	100	20-60	0.2	4	10	500	30	1.4	0.2	0.02	3	0.2
40	–	60	35-100	0.2	4	10	500	30	1.4	0.2	0.02	3	0.2
55	–	100	35-100	0.2	4	10	500	30	1.4	0.2	0.02	3	0.2
40	–	60	25-150	0.45	4	1	–	30	1	0.45	0.045	1.5	0.45
65	–	90	30-125	0.3	4	1	–	60	0.75	0.3	0.03	1.3	0.3
55	–	100	35-100	0.2	4	4	–	30	1.4	0.2	10	3	0.2

●JAN types available

TO-39

2N1486 FAMILY [n-p-n] (silicon)

f_T = 1.2 MHz typ; P_T = 25 W max

2N TYPES

2N1483■
2N1484■
2N1485■
2N1486■
Intermediate Power DC-to-DC Converter, Inverter Chopper, Regulators, DC and Servo Amplifiers Relay and Solenoid–Actuating Circuits

HIGH-RELIABILITY TYPES

40368 Hi-Rel Version of 2N1486

40	–	60	20-60	0.75	4	15	0.75	30	2	0.75	0.075	3.5	0.75
55	–	100	20-60	0.75	4	15	0.75	30	2	0.75	0.075	3.5	0.75
40	–	60	35-100	0.75	4	15	0.75	30	0.75	0.75	0.04	2.5	0.75
55	–	100	35-100	0.75	4	15	0.75	30	0.75	0.75	0.04	2.5	0.75
55	–	100	35-100	0.75	4	9	–	30	0.75	0.75	0.04	2.5	0.75

■JAN & JAN TX types available

TO-8

2N1490 FAMILY [n-p-n] (silicon)

f_T = 0.8 MHz typ; P_T = 75 W max

2N TYPES

2N1487● High Power DC-to-DC Converter, Inverter, Chopper
2N1488● Voltage and Current Regulator, DC and Servo
2N1489● Amplifier, Relay, and Solenoid
2N1490● Actuating Circuits

HIGH-RELIABILITY TYPES

40369 Hi-Rel Version of 2N1490

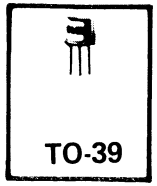
40	–	60	15-45	1.5	4	25	1000	30	3	1.5	0.3	3.5	1.5
55	–	100	15-45	1.5	4	25	1000	30	3	1.5	0.3	3.5	1.5
40	–	60	25-75	1.5	4	25	1000	30	1	1.5	0.1	2.5	1.5
55	–	100	25-75	1.5	4	25	1000	30	1	1.5	0.1	2.5	1.5
55	–	100	25-75	1.5	4	10	–	30	1	1.3	0.1	2.5	1.3

●JAN types available

TO-3

2N2102 FAMILY [n-p-n] (silicon)

f_T = 120 MHz min; P_T = 5 W max



DESCRIPTION	V_{CEO}(sus)	V_{CER}(sus)	V_{CEV}(sus)	h_{FE}* Current–mA							I_{CBO}–μA Temp.–°C		V_{CB}	V_{CE}(sat)–V			V_{BE}(sat)–V	
														I_C	I_B		I_C	
2N TYPES	V	V	V	0.01	0.1	10	50	150	500	1000	25	150	V	mA	mA		mA	
2N697 40 V–General Purpose	–	40	–	–	–	–	–	40-120	–	–	1	–	30	1.5	150	15	1.3	150
2N699 80 V–General Purpose	–	80	–	–	–	–	–	40-120	–	–	2	–	60	5	150	15	1.3	150
2N1613 50 V–Linear Beta	–	50	–	–	20 min.	35 min.	–	40-120	20 min.	–	0.01	10	60	1.5	150	15	1.3	150
2N1711 50 V–High Linear Beta	–	50	–	20 min.	35 min.	75 min.	–	100-300	40 min.	–	0.01	10	60	1.5	150	15	1.3	150
2N1893 80 V–Low Leakage	80	100	–	–	20 min.	35 min.	–	40-120	–	–	0.01	15	90	5	150	15	1.3	150
2N2102 65 V 2N1613–More Linear, Low Leakage & V_{CE}(sat)	65	80	–	10 min.	20 min.	35 min.	–	40-120	25 min.	10 min.	0.002	2	60	0.5	150	15	1.1	150
2N2270 45 V 2N697–Higher h_{FE}, Lower Leakage and V_{CE}(sat)	45	60	–	–	–	–	–	50-200	–	–	0.1	50	60	0.9	150	15	1.2	150
2N2405 High Voltage, High Beta 2N2102	90	120	–	–	–	35 min.	–	60-200	25 min.	–	0.01	10	90	0.5	150	15	1.1	150
2N3053 40 V, General Purpose, Low Cost	40	50	60	–	–	–	–	50-250	–	–	0.25	–	30	1.4	150	15	1.7	150
AUDIO TYPES																		
40309 Driver, 2-W Mobile Radio Amplifier	18	–	–	–	–	–	70-350	–	–	–	0.25	1000	15	–	–	–	1	50
40311 Driver, 5-W Class A Amplifier	30	–	–	–	–	–	70-350	–	–	–	0.25	1000	15	–	–	–	1	50
40314 Complementary Driver for 10-W Class AB Amplifier	40	–	–	–	–	–	70-350	–	–	–	0.25	1000	15	1.4	150	15	1	50
40315 Driver, 10-W Class B Amplifier	35	–	–	–	–	–	70-350	–	–	–	0.25	1000	15	–	–	–	1	50
40317 Driver, 10-W Class B, AC/DC Amplifier	40	–	–	–	–	40-200	–	–	–	–	0.25	1000	15	–	–	–	1	10
40320 Driver, 25-W AC/DC Amplifier	40	–	–	–	–	40-200	–	–	–	–	0.25	1000	15	–	–	–	1	10
40544 Driver, 25-W Comp. Amplifier	–	50	–	–	–	–	35-200	–	–	–	10▲	–	40	1	150	15	1.7	50
40326 Predriver for 35-W Class B AC/DC PA Amplifier	40	–	–	–	–	40-200	–	–	–	–	0.25	1000	15	–	–	–	1	10
40360 Predriver for 35-W Class AB Amplifier	70	–	–	–	–	40-200	–	–	–	–	1■	250■	60	1.4	150	15	1	10
40361 Complementary driver for 35-W Class AB Amplifier	–	70	–	–	–	–	70-350	–	–	–	1▲	100▲	60	1.4	150	15	1	50
40323 Predriver for 50-W Class B PA Amplifier	18	–	–	–	–	–	70-350	–	–	–	0.25	1000	15	–	–	–	1	50
40407 Predriver for 70-W Class AB Amplifier	50	–	–	–	40-200 @ 1 mA	–	–	–	–	–	0.25	–	10	–	–	–	0.8	1
40408 Predriver for 70-W Class AB Amplifier	90	–	–	–	–	40-200	–	–	–	–	1■	250■	80	1.4	150	15	1	10
40409 Complementary Driver for 70-W Class AB Amplifier	–	90	–	–	–	–	–	50-250	–	–	1▲	100▲	80	1.4	150	15	1	150
40611 Driver, 3-W True Comp. Univ. Amplifier	25	–	–	–	–	–	70-500	–	–	–	0.5	–	15	–	–	–	–	–
40616 Driver, 5- & 7-W True Comp. Univ. Amplifier	32	–	–	–	–	–	70-500	–	–	–	0.5	–	15	–	–	–	–	–
40814 Predriver for 12-W True Comp. Univ. Amplifier	45	–	–	–	–	50-250	–	–	–	–	10■	–	10	1.4	150	15	1.7	150
40625 Driver, 16-W True Comp. Univ. Amplifier	45	–	–	–	–	–	–	100-300	–	–	0.25	–	60	0.5	150	15	1	150
40628 Driver, 20-W True Comp. Univ. Amplifier	55	–	–	–	–	–	–	100-300	–	–	0.25	–	60	0.5	150	15	1	150
40635 Driver, 40-W Quasi-Comp. Univ. Amplifier	–	70	–	–	–	–	–	50-250	–	–	10▲	–	65	0.8	150	15	1.4	150
OTHER TYPES																		
40389 2N3053 with Heat Radiator	40	50	60	–	–	–	–	50-250	–	–	0.25	–	30	1.4	150	15	1.7	150
40392 2N3053 with Flange	40	50	60	–	–	–	–	50-250	–	–	0.25	–	30	1.4	150	15	1.7	150
HIGH-RELIABILITY TYPES																		
40366 Hi-Rel Version of 2N2102	65	80	–	10 min	20 min.	–	–	40-120	25 min	10 min.	0.002	–	60	0.5	150	15	1.1	150

Note: All the above types are available with radiator or flange:
Radiator improves $R_{\theta JA}$ from 175°C/W to 50°C/W
Flange improves $R_{\theta JC}$ from 35°C/W to 25°C/W

*All "2N" types and 40407, h_{FE} measured at V_{CE} = 10 V All other types h_{FE} measured at V_{CE} = 4 V

▲I_{CER} @ V_{CE} ■I_{CEO} @ V_{CE}

2N2015 FAMILY [n-p-n] (silicon)

f_T = 0.8 MHz typ; P_T = 150 W max

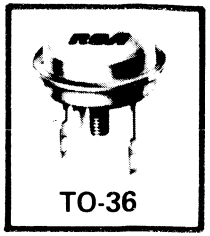
DESCRIPTION

2N TYPES

2N2015● 150-W Switch in DC-to-DC Converter
2N2016● Inverter, Chopper and Relay
2N2338 Inverter, Chopper and Relay

V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}	I_C A	V_{CE} V	I_{CBO}–μA Temp.–°C 25	150	V_{CB} V	V_{CE}(sat)–V	I_C A	I_B A	V_{BE}–V	I_C A
50	–	100	15-50	5	4	50	2000	30	1.25	5	0.5	2.2	5
65	–	130	15-50	5	4	50	2000	30	1.25	5	0.5	2.2	5
40	–	60	15-60	3	4	200	3000	30	1.5	3	0.3	3	3

■JAN types available



TO-36

2N2895 FAMILY [n-p-n] (silicon)

f_T = 100 MHz min; P_T = 1.8 W max

2N TYPES

2N718A Small-Signal
2N720A Small-Signal
2N2895 Small-Signal
2N2896 Small-Signal
2N2897 Small-Signal

32	50	–	40-120	0.15	10	0.01	10	60	1.5	0.15	0.015	1.3	0.15
80	100	–	40-120	0.15	10	0.01	15	90	5	0.15	0.015	1.3	0.15
65	80	–	40-120	0.15	10	0.002	2	60	0.6	0.15	0.015	1.2	0.15
90	140	–	60-200	0.15	10	0.01	10	90	0.6	0.15	0.015	1.2	0.15
45	60	–	50-200	0.15	10	0.05	50	60	1	0.15	0.015	1.3	0.15

OTHER TYPES

40084 Small-Signal

40	50	–	50-250	0.15	10	0.25	–	30	1.4	0.15	0.015	1.7	0.15

TO-18

2N3054 FAMILY [n-p-n] (silicon)

f_T = 0.8 MHz min; P_T up to 50 W max

2N TYPES

2N6260 40-V 29-W Hometaxial-Base, General Purpose
2N3054 55-V 25-W Hometaxial-Base, General Purpose
2N6261 80-V 50 W Hometaxial-Base, General Purpose
BDY 71 55-V Hometaxial Base

40	45	50	20-100	1.5	4	5▲	25▲	40	1.5	1.5	0.15	2.2	1.5
55	60	90	25-150	0.5	4	1▲	6▲	90	1	0.5	0.05	1.7	0.5
80	85	90	25-100	1.5	2	0.5▲	1▲	80	0.5	1.5	0.15	1.5	1.5
55	60	90	80.200	0.5	4	1▲	6▲	90	1	0.5	0.05	1.7	0.5

AUDIO TYPES

40310 Output, 2-W Mobile Radio Amplifier
40312 Output, 5-W Class A Amplifier
40316 Output, 10-W Class B Amplifier
40324 Driver, 50-W Class B PA Amplifier

35	–	–	20-120	1	2	10	5000	15	–	–	–	1.4	1
–	60	–	20-120	1	2	10	5000	15	–	–	–	1.4	1
–	40	–	20-120	1	2	10	5000	15	–	–	–	1.4	1
35	–	–	20-120	1	2	10	5000	15	–	–	–	1.4	1

OTHER TYPES

40250 40-V 25-W Hometaxial-Base
40372 2N3054 with Heat Radiator*
40910 2N6260 with Heat Radiator*
40911 2N6261 with Heat Radiator*

40	–	50	25-100	1.5	4	1	5	30	1.5	1.5	0.15	2.2	1.5
55	60	90	25-100	0.5	4	1▲	6▲	90	1	0.5	0.05	1.7	0.5
40	45	50	20-100	1.5	4	1	5	30	1.5	1.3	0.15	2.2	1.3
80	85	90	25-100	1.5	2	0.5	1	80	0.5	1.5	0.15	1.5	1.5

TO-66

▲I_{CEX}–mA @ V_{CE}

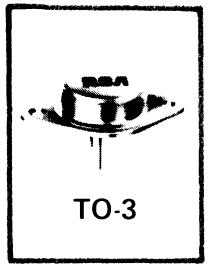
*Radiator changes $R_{\theta JA}$ from 65°C/W to 30°C/W

2N3055 FAMILY [n-p-n] (silicon)

f_T = 0.8 MHz min; P_T up to 150 W max

DESCRIPTION	V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}	I_C A	V_{CE} V	I_{CEX}–mA Temp.–°C 25	150	V_{CE} V	V_{CE}(sat)–V I_C A	I_B A	V_{BE}–V I_C A
2N TYPES												
2N6253 115-W Hometaxial-Base, General Purpose	45	55	55	20-70	3	4	2	10	55	1	3	0.3	1.7	3
2N3055■ 115-W Hometaxial-Base, General Purpose	60	70	90	20-70	4	4	5	30	100	1.1	4	0.4	1.8	4
2N6254 150-W Hometaxial-Base, General Purpose	80	85	90	20-70	5	2	0.5	5	100	0.5	5	0.5	1.5	5
2N6371 40-V, 117-W Hometaxial-Base	40	45	50	15-60	8	4	2*	10*	40	1.5	8	0.8	2.2	8
AUDIO TYPES												
40363 Output, 35-W Class AB Amplifier	–	70	–	20-70	4	4	1▲	10▲	60	1.1	4	0.4	1.8	4
40325 Output, 50-W Class B PA Amplifier	35	–	35	12-60	8	4	5●	10●	30	1.5	8	0.8	2	8
40636 Output, 70-W Quasi-Comp. Univ. Amp.	–	95	–	20-70	4	4	0.5▲	–	85	1	4	0.4	1.4	4

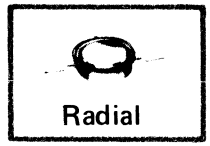
■JAN & JAN TX types available. *I_{CEV} ▲I_{CER} ●I_{CBO} @ V_{CB}



2N3263 FAMILY [n-p-n] (silicon)

f_T = 20 MHz min; P_T = 84 W max

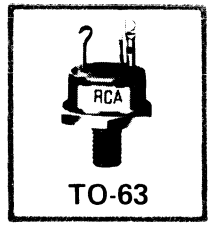
2N TYPES													
2N3263 High-Current	90	110	150	25-75	15	3	20	–	150	0.75	15	1.2	1.6	15
2N3264 High-Current	60	80	120	20-80	15	3	20	–	120	1.2	15	1.2	1.8	15



2N3265 FAMILY [n-p-n] (silicon)

f_T = 20 MHz min; P_T = 125 W max

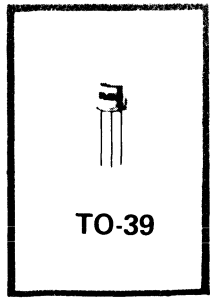
2N TYPES													
2N3265 High-Current	90	110	150	25-75	15	3	20	–	150	0.75	15	1.2	1.6	15
2N3266 High-Current	60	80	120	20-80	15	3	20	–	120	1.2	15	1.2	1.8	15



2N3439 FAMILY [n-p-n] (silicon)

f_T = 15 MHz min; P_T = 10 W max

2N & PRO-ELECTRON TYPES													
2N3440● High Frequency Response, Fast Switch	250	300	–	40-160	20†	10	500■	–	300	0.5	50 †	4 †	1.3	50†
2N3439● High Frequency Response, Fast Switch	350	400	–	40-160	20†	10	500■	–	450	0.5	50 †	4 †	1.3	50†
BF257 High Voltage, High-Speed	160			25	30†	10				1	0.03	0.006		
BF258 High Voltage, High-Speed	250			25	30†	10				1	0.03	0.006		
BF259 High Voltage, High-Power	300			25	30†	10				1	0.03	0.006		
2N4063 2N3439 with Flange	350	–	–	40-160	20†	10	500■	–	450	0.5	50 †	4 †	1.3	50†
2N4064 2N3440 with Flange	250	–	–	40-160	20†	10	500■	–	300	0.5	50 †	4 †	1.3	50†
AUDIO TYPES														
40986 Class A Predriver, 120-W & 200-W Amplifier	175	–	–	20-100	0.01	10	0.01♦	–	90	0.5	0.05	0.004	0.9	0.01
40990 Input, 120-W Amplifier	175	–	–	40-250	0.001	10	0.01♦	–	90	–	–	–	0.7	0.001
40998 Class A Predriver, 200-W Amplifier	100	–	–	20-100	0.01	10	0.01♦	–	90	1	0.01	0.001	1	0.01
40321 Driver, 25-W Class B AC/DC Amplifier	–	300	–	25-200	20†	10	100▲	–	150	–	–	–	2	50†
40327 Driver, 35-W Class B AC/DC PA Amplifier	–	300	–	40-250	20†	10	100▲	–	150	–	–	–	2	50†
40412 Class A AC/DC Audio Amplifier	–	250	–	40 min.	30†	20	1▼	–	100	–	–	–	–	–
OTHER TYPES														
40346 2N3440 "Nixie tube" Driver, Operational Amp.	–	175	–	25 min	10†	10	10■	100	200	0.5	10†	1†	1	10†
40390 2N3440 with Heat Radiator*	250	–	–	40-160	20†	10	500■	–	300	0.5	50†	4†	1.3	50†



●JAN & JAN TX types available. ▲I_{CBO}–μA @ V_{CB} ■I_{CEV}–μA *Radiator improves $R_{\theta JA}$ from 150°C/W to 45°C/W
† mA ▼I_{CER} ♦I_{CEO}

DESCRIPTION

HIGH-RELIABILITY TYPES

40385 Hi-Rel Version of 2N3439

2N TYPES

2N6263 120-V, 20-W Hometaxial-Base
2N3441● 140-V, 25-W Hometaxial-Base
2N6264 150-V, 50-W Hometaxial-Base

OTHER TYPES

40373 2N3441 with Heat Radiator*
40912 2N6263 with Heat Radiator*
40913 2N6264 with Heat Radiator*

2N TYPES

2N4347 120-V, 100-W Hometaxial-Base
2N3442● 140-V, 117-W Hometaxial-Base
2N6262 150-V, 150-W Hometaxial-Base

2N & PRO-ELECTRON TYPES

BUX67 High-Breakdown Voltage, Fast Switch
BUX67A High-Breakdown Voltage, Fast Switch
BUX67B High-Breakdown Voltage, Fast Switch
BUX67C High-Breakdown Voltage, Fast Switch
2N3583 High-Breakdown Voltage, Fast Switch
2N3584● High-Breakdown Voltage, Fast Switch
2N3585● High-Breakdown Voltage, Fast Switch
2N4240 High-Breakdown Voltage, Fast Switch

AUDIO TYPES

40991 Class B Predriver, 200-W Amplifier
40313 Output, 5-W Class A AC/DC Amplifier
40318 Output, 10-W Class B AC/DC Amplifier
40322 Output, 25-W Class B AC/DC Amplifier
40328 Output, 35-W Class B AC/DC PA Amplifier

OTHER TYPES

40374 2N3583 with Heat Radiator*
40850 Switching-Regulator for Power Supplies

2N3439 FAMILY [n-p-n] (silicon) [cont'd]

f_T = 15 MHz min; P_T = 10 W max

V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}	I_C A	V_{CE} V	I_{CEV}–mA Temp.–°C 25	150	V_{CE} V	V_{CE}(sat)–V	I_C A	I_B A	V_{BE}–V	I_C A
350	–	–	40-160	20†	10	500■	–	450	0.5	50†	4†	1.3	50†

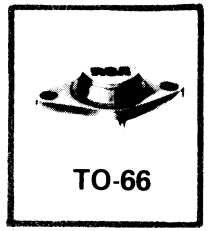
†mA

2N3441 FAMILY [n-p-n] (silicon)

f_T = 1.2 MHz typ; P_T up to 50 W max

120	130	140	20-100	0.5	4	2	10	120	1.2	0.5	0.05	2	0.5
140	150	160	25-100	0.5	4	1	5	140	1	0.5	0.05	1.7	0.5
150	160	170	20-60	1	2	0.05	1	150	0.5	1	0.1	1.5	1
140	150	160	25-100	0.5	4	1	5	140	1	0.5	0.05	1.7	0.5
120	130	140	20-100	0.5	4	2	10	120	1.2	0.5	0.05	2	0.5
150	160	170	20-60	1	2	0.05	1	150	0.5	1	0.1	1.5	1

●JAN type available * Radiator improves $R_{\theta JA}$ from 65°C/W to 30°C/W

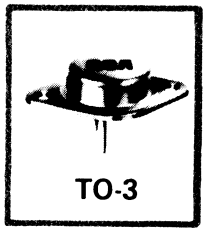


2N3442 FAMILY [n-p-n] (silicon)

f_T = 0.8 MHz typ; P_T up to 150 W max

120	130	140	15-60	2	4	2	10	120	1	2	0.2	2	2
140	150	160	20-70	3	4	5	30	140	1	3	0.3	1.7	3
150	160	170	20-70	3	2	0.1	2	150	0.5	3	0.3	1	3

●JAN type available

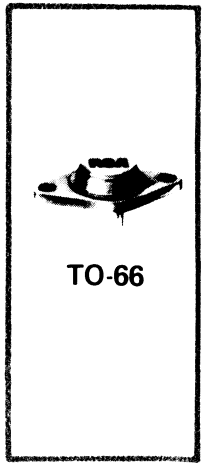


2N3585 FAMILY [n-p-n] (silicon)

f_T = 15 MHz min; P_T = 35 W max

150	175	–	10-150	1	5	8	10**	200	1.5	1	0.15	2.5	1
250	275	–	10-150	1	5	8	10**	300	1.5	1	0.15	2.5	1
300	325	–	10-150	1	5	8	10**	350	1.5	1	0.15	2.5	1
350	375	–	10-150	1	5	8	10**	400	1.5	1	0.15	2.5	1
175	250	–	40 min.	0.1	10	1	3	225	5	1	0.125	1.4	1
250	300	–	40 min.	0.1	10	1	3	300	0.75	1	0.125	1.4	1
300	400	–	40 min.	0.1	10	1	3▲	400	0.75	1	0.125	1.4	1
300	400	–	30-150.	0.75	10	2	5▲	400	1	0.75	0.075	1.8	0.75
175	200	–	30-150	0.3	2	0.1▼	–	120	–	–	–	1	0.3
–	300	–	40-250	0.1	10	10	10	300	–	–	–	1.5	0.1
–	300	–	40 min.	0.02	10	5	10	150	–	–	–	1.5	0.5
–	300	–	40 min.	0.02	10	10	10	150	–	–	–	1.5	1
–	300	–	40 min.	0.02	10	10	10	150	–	–	–	1.5	1
175	250	–	40 min.	0.1	10	1	3	225	5	1	0.125	1.4	1
300	400	–	25 min.	0.75	10	0.2	2■	450	2	2	0.4	2	2

●JAN types available. ▲I_{CEV} @ V_{CE} = 300 V. * Radiator improves $R_{\theta JA}$ from 70°C/W to 30°C/W. ■A_t T_C = 125°C.
†I_{CER} ▼I_{CER} **At T_c = 100°C



DESCRIPTION

2N3771 FAMILY [n-p-n] (silicon)

f_T = 0.8 MHz min; P_T up to 250 W max

2N TYPES

2N6257 High-Current, General Purpose
2N3771■ High-Current, General Purpose
2N3772■ High-Current, General Purpose
BDY29 High-Current, General Purpose

AUDIO TYPES

40411 Output, 70-W Class AB Amplifier

V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}	I_C A	V_{CE} V	I_{CEV}–mA Temp.–°C 25	150	V_{CE} V	V_{CE}(sat)–V	I_C A	I_B A	V_{BE}–V	I_C A
40	45	50	15-75	8	4	4	20	45	1.5	8	0.8	2.2	8
40	45	50	15-60	15	4	2	10▲	50	2	15	1.5	2.7	15
60	70	80	15-60	10	4	5	10▲	100	1.4	10	1	2.2	10
75	–	90	15-60	15	2	1●	10▲	100	1.2	15	1.5	3.5	30
–	90	–	35-100	4	4	0.5●	2●	80	0.8	4	0.4	1.2	4

▲ At V_{CE} = 30 V

■JAN & JAN TX types available. ●I_{CER}

TO-3

2N3773 FAMILY [n-p-n] (silicon)

f_T = 0.7 MHz typ; P_T up to 250 W max

2N TYPES

2N4348 High-Current High Voltage, General Purpose
2N3773 High-Current High Voltage, General Purpose
2N6259 High-Current High Voltage, General Purpose
BDY37 High-Current High Voltage, General Purpose

120	140	140	15-60	5	4	2	10	120	1	5	0.5	2	5
140	150	160	15-60	8	4	2	10	140	1.4	8	0.8	2.2	8
150	160	170	15-60	8	2	0.2	4	150	1	8	0.8	2	8
140	–	160	15-60	8	4	2●	10●	140	1.4	8	0.8	2.2	8

2N3879 FAMILY [n-p-n] (silicon)

f_T = 60 MHz min; P_T = 35 W max

2N TYPES

2N3878 Audio, Ultrasonic Amplifiers and RF
2N3879 High-Current High-Speed Switch
2N5202 High-Current High-Speed Switch
2N6500 High-Current High-Speed Switch

AUDIO TYPES

40364 Output, 20-W Class AB Amplifier

OTHER TYPES

40375 2N3878 with Heat Radiator*

50	65	–	50-200	0.5	5	4	4	100	2	4	0.5	2.5	4
75	90	–	20-80	4	5	4	4	100	1.2	4	0.4	1.8	4
–	75	–	10-100	4	1.2	10	10	100	1.2	4	0.4	1.9	4
90	110	–	15-60	3	2	5	10	110	1.5	3	0.3	2.5	3
–	70	–	35-175	0.5	5	0.5●	2●	50	2	2.5	0.25	1.8	2.5
50	65	–	50-200	0.5	5	4	4	100	2	4	0.5	2.5	4

*Radiator improves $R_{\theta JA}$ from 70°C/W to 30°C/W

● I_{CER}

TO-66

2N4036 FAMILY [p-n-p] (silicon)

f_T = 60 MHz min; P_T up to 7 W max

2N TYPES

2N4036 PNP Complement of 2N2102
2N4037 PNP Complement of 2N3053
2N4314 Low Cost, High Voltage

-65	-85	-85	40-140	-0.15	-10	-0.02●	–	-60	-0.65	-0.15	-0.015	-1.1	-0.15
-40	-60	-60	50-250	-0.15	-10	-0.25●	–	-60	-1.4	-0.15	-0.015	-1.5	-0.15
-65	-85	-85	50-250	-0.15	-10	-0.25●	–	-60	-1.4	-0.15	-0.015	-1.5	-0.15

TO-39

2N4036 FAMILY [p-n-p] (silicon) [cont'd]

f_T = 60 MHz min; P_T up to 7 W max

DESCRIPTION	$V_{CEO(sus)}$ V	$V_{CER(sus)}$ V	$V_{CEV(sus)}$ V	h_{FE}	I_C A	V_{CE} V	I_{CEV}–mA Temp.–°C 25	150	V_{CE} V	$V_{CE(sat)}$–V	I_C A	I_B A	V_{BE}–V	I_C A
AUDIO TYPES														
40537 Driver, 3.5-W Intercom Amplifier	–	-55	–	50-300	-0.05	-4	-10▲	–	-45	-1.1	-0.05	-0.005	-1.8	-0.05
40319 Complementary driver for 10-W Class AB Amplifier	-40	–	–	35-200	-0.05	-4	-0.25●	-1●	-15	-1.4	-0.15	-0.015	-1	-0.05
40362 Complementary driver for 20-W Class AB Amplifier	–	-70	–	35-200	-0.05	-4	-1▲	-100▲	-60	-1.4	-0.15	-0.015	-1	-0.05
40815 Driver, 12-W True Comp. Univ. Amplifier	–	-45	–	70-250	-0.15	-1	-10▲	–	-40	-1.4	-0.15	-0.015	-1.5	-0.15
40406 Input, 70-W Class AB Amplifier	-50	–	–	30-200	-0.1†	-10	-1■	-10■	-40	–	–	–	-0.8	-0.1†
40410 Complementary driver for 70-W Class AB Amplifier	–	-90	–	50-250	-0.15	-4	-1▲	-100▲	-80	-1.4	-0.15	-0.015	-1	-0.15
40634 Driver, 40-W Quasi-Comp. Univ. Amplifier	–	-75	–	50-250	-0.15	-4	-10▲	–	-65	-0.8	-0.15	-0.015	-1.4	-0.15

●I_{CBO}–μA @ V_{CB} ▲I_{CER}–μA ■I_{CEO}–μA

OTHER TYPES														
40391 2N4037 with Heat Radiator *	-40	-60	-60	50-250	-0.15	-10	-0.25●	-50●	-60	-1.4	-0.15	-0.015	-1.5	-0.15
40394 2N4037 with Flange	-40	-60	-60	50-250	-0.15	-10	-0.25●	-50●	-60	-1.4	-0.15	-0.015	-1.5	-0.15

†mA * Radiator improves $R_{\theta JA}$ from 175°C/W to 50°C/W.

2N5038 FAMILY [n-p-n] (silicon)

f_T = 60 MHz min; P_T = 140 W max

2N TYPES													
2N5038■ High-Current, High-Speed Switch	90	110	150▲	20-100	12	5	–	10	100	1	12	1.2	1.8	12
2N5039■ High-Current, High-Speed Switch	75	95	120▲	20-100	10	5	–	10	85	1	10	1	1.8	10
2N6496 High-Current, High-Speed Switch	110	130	—	12-100	8	2	20	25	130	1	8	0.8	1.6	8
2N6354 High-Current, High-Speed Switch	120	130	130▲	10-100	10	2	10	20	140	1	10	1	2	10

■JAN & JAN TX types available. ▲V_{CEX}(sus).

2N5240 FAMILY [n-p-n] (silicon)

f_T = 5 MHz min; P_T = 100 W max

2N & PRO-ELECTRON TYPES													
2N5239 Multiple Epitaxial	225	250	–	20-80	2	10	4	5	300	2.5	2	0.25	3	2
2N5240 Multiple Epitaxial	300	350	–	20-80	2	10	2	3■	375	2.5	2	0.25	3	2
BUX16 Multiple Epitaxial	200	225	250	15-130	0.4	10	5	8●	250	2.5	2	0.25	3	2
BUX16 A Multiple Epitaxial	250	300	325	15-130	0.4	10	5	8●	325	2.5	2	0.25	3	2
BUX16 B Multiple Epitaxial	300	350	375	15-130	0.4	10	2	3●	375	2.5	2	0.25	3	2
BUX16 C Multiple Epitaxial	350	400	425	15-130	0.4	10	2	3●	425	2.5	2	0.25	3	2
AUDIO TYPES														
40983 Output, 120-W Amplifier	200	225	–	15-75	2	5	0.001▲	120	–	2	2	0.25	2	2
40988 Output, 200-W Amplifier	250	275	–	15-75	2	5	0.001▲	200	–	2	2	0.25	2	2

▲I_{CER} ● At V_{CE} = 250V ■At V_{CE} = 300V

2N5298 PLASTIC FAMILY [n-p-n] (silicon)

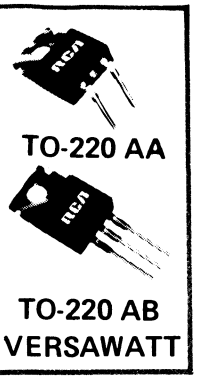
f_T = 0.8 MHz min; P_T = 36 W max

2N TYPES													
2N5293 Hometaxial-Base, TO-220 AA	70	75	80	30-120	0.5	4	0.5	3	65	1	0.5	0.05	1.1	0.5
2N5294 Hometaxial-Base, TO-220 AB	70	75	80	30-120	0.5	4	0.5	3	65	1	0.5	0.05	1.1	0.5
2N5295 Hometaxial-Base, TO-220 AA	40	50	60	30-120	1	4	2	5	35	1	1	0.1	1.3	1
2N5296 Hometaxial-Base, TO-220 AB	40	50	60	30-120	1	4	2	5	35	1	1	0.1	1.3	1
2N5297 Hometaxial-Base, TO-220 AA	60	70	80	20-80	1.5	4	0.5	3	65	1	1.5	0.15	1.5	1.5
2N5298 Hometaxial-Base, TO-220 AB	60	70	80	20-80	1.5	4	0.5	3	65	1	1.5	0.15	1.5	1.5

TO-3

2N5298 PLASTIC FAMILY [n-p-n] (silicon) [cont'd]

f_T = 0.8 MHz min; P_T = 36 W max



DESCRIPTION	V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}	I_C mA	V_{CE} V	I_{CER}–mA Temp.–°C 25	150	V_{CE} V	V_{CE}(sat)–V	I_C mA	I_B mA	V_{BE}–V	I_C mA
AUDIO TYPES														
40613 Output 3-W True Comp. Univ. Amplifier	25	–	–	30-120	1 †	4	2●	–	25	1	1 †	0.1 †	1.3	1 †
40618 Output 5-W True Comp. Univ. Amplifier	30	–	–	30-120	1 †	4	2●	–	30	1	1 †	0.1 †	1.3	1 †
40621 Output 7-W True Comp. Univ. Amplifier	32	–	–	25-100	1.5†	4	0.5●	–	30	1	1.5 †	0.15†	1.5	1.5†
40622 Output 12-W True Comp. Univ. Amplifier	40	–	–	25-100	1.5†	4	0.5	–	40	1	1.5 †	0.15†	1.5	1.5†
40629 Output 5-W Quasi-Comp. Univ. Amplifier	–	35	–	20-70	1 †	4	0.5	–	30	1	1 †	0.1 †	1.3	1 †
40630 Output 7-W Quasi-Comp. Univ. Amplifier	–	40	–	20-70	1.5†	4	0.5	–	35	1	1.5 †	0.15†	1.4	1.5 †
40631 Output 10- & 12-W Quasi-Comp. Univ. Amplifier	–	45	–	20-70	2 †	4	0.5	–	40	1	2 †	0.2 †	1.5	2 †

●I_{CBO}–μA †A

2N5320 FAMILY [n-p-n] (silicon)

f_T = 50 MHz min; P_T = 10 W max

2N TYPES														
2N5320 NPN Complement of 2N5322	75	90	100	30-130	500	4	0.5●	–	80	0.5	500	50	1.1	500
2N5321 NPN Complement of 2N5323	50	65	75	40-250	500	4	5●	–	60	0.8	500	50	1.4	500
AUDIO TYPES														
40539 Output 3.5-W Amplifier, Complement of 40538	–	55	–	15- 90	500	4	10▲	–	45	2	500	50	2.7	500
40594 Driver, 70-W Quasi-Comp. Univ. Amplifier	–	95	–	70-350	300	4	10▲	–	85	0.8	300	30	1.4	300

●I_{CBO}–μA
▲I_{CER}–μA

2N5322 FAMILY [p-n-p] (silicon)

f_T = 50 MHz min; P_T = 10 max

2N TYPES														
2N5322 PNP Complement of 2N5320	-75	-90	-100	30-130	-500	-4	-0.5●	–	-80	-0.7	-500	-50	-1.1	-500
2N5323 PNP Complement of 2N5321	-50	-65	-75	40-250	-500	-4	-5●	–	-60	-1.2	-500	-50	-1.4	-500
AUDIO TYPES														
40538 Output, 3.5-W Amplifier, Complement of 40539	–	-55	–	15-90	-500	-4	-10▲	–	-45	-2	-500	-50	-2.7	-500
40595 Driver, 70-W Quasi-Comp. Amplifier	–	-95	–	70-350	-300	-4	-10▲	–	-85	-0.8	-300	-30	-1.4	-300

2N5415 FAMILY [p-n-p] (silicon)

f_T = 15 MHz min; P_T = 10 W max

●I_{CBO}–μA
▲I_{CER}–μA

2N & PRO-ELECTRON TYPES													
2N5415 PNP Complement of 2N3440	-200	–	–	30-150	-50	-10	-50■	–	-200	-2.5	-50	-5	-1.5	-50
2N5416 PNP Complement of 2N3439	-300	-350	–	30-120	-50	-10	-50■	–	-300	-2	-50	-5	-1.5	-50
BFT19 High Voltage	-150	-200	–	25 min.	-30	-10	-100▲	–	-100	-1	-10	-1	-1.8	-30
BFT19A High Voltage	-250	-300	–	25 min.	-30	-10	-100▲	–	-200	-1	-10	-1	-1.8	-30
BFT19B High Voltage	-350	-400	–	25 min.	-30	-10	-100▲	–	-300	-1	-10	-1	-1.8	-30
BFT28 High voltage	-100	-150	–	20 min.	-10	-10	-1▲	–	-50	-0.6	-10	-1	-1.5	-30
BFT28A High Voltage	-150	-200	–	20 min.	-10	-10	-1▲	–	-75	-0.6	-10	-1	-1.5	-30
BFT28B High Voltage	-200	-250	–	20 min.	-10	-10	-5▲	–	-150	-5	-10	-1	-1.5	-30
BFT28C High Voltage	-250	-300	–	20 min.	-10	-10	-5▲	–	-150	-5	-10	-1	-1.5	-30
AUDIO TYPES														
40987 Class A Predriver, 120-W Amplifier	-175	–	–	40-250	-10	-10	-10●	–	-120	-2	-10	-1	-0.8	-10
40999 Class A Predriver, 70-W Amplifier	-100	–	–	40-250	-10	-10	-10●	–	-90	-1	-10	-1	-1	-10

2N5496 PLASTIC FAMILY [n-p-n] (silicon)

f_T = 0.8 MHz min; P_T = 50 W max

▲I_{CBO}-μA ■I_{CEV}-μA ●I_{CEO}-μA

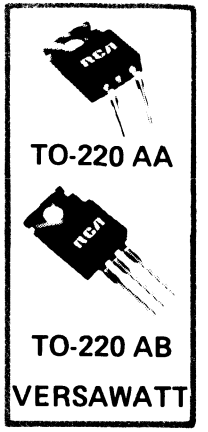
2N TYPES													
2N5490 Hometaxial-Base, TO-220 AB	40	50	60	20-100	2 †	4	2	5	40	1	2 †	0.2 †	1.1	2 †
2N5491 Hometaxial-Base, TO-220 AA	40	50	60	20-100	2 †	4	2	5	40	1	2 †	0.2 †	1.1	2 †

† A

2N5496 PLASTIC FAMILY [n-p-n] (silicon) [cont'd]

f_T = 0.8 MHz min; P_T = 50 W max

DESCRIPTION	$V_{CEO(sus)}$ V	$V_{CER(sus)}$ V	$V_{CEV(sus)}$ V	h_{FE}	I_C A	V_{CE} V	I_{CER}–mA Temp.–°C 25	150	V_{CE} V	$V_{CE(sat)}$–V	I_C A	I_B A	V_{BE}–V	I_C A
2N TYPES														
2N5492 Hometaxial-Base, TO-220 AB	55	65	75	20-100	2.5	4	0.5	3.5	55	1	2.5	0.25	1.3	2.5
2N5493 Hometaxial-Base, TO-220 AA	55	65	75	20-100	2.5	4	0.5	3.5	55	1	2.5	0.25	1.3	2.5
2N5494 Hometaxial-Base, TO-220 AB	40	50	60	20-100	3	4	0.5	3.5	40	1	3	0.3	1.5	3
2N5495 Hometaxial-Base, TO-220 AA	40	50	60	20-100	3	4	0.5	3.5	40	1	3	0.3	1.5	3
2N5496 Hometaxial-Base, TO-220 AB	70	80	90	20-100	3.5	4	0.5	3.5	70	1	3.5	0.35	1.7	3.5
2N5497 Hometaxial-Base, TO-220 AA	70	80	90	20-100	3.5	4	0.5	3.5	70	1	3.5	0.35	1.7	3.5
AUDIO TYPES														
40816 Output, 12-W True Comp. Univ. Amplifier	–	45	–	35-150	2	1	0.5	–	40	1	3.5	0.35	1.7	3.5
40624 Output, 16-W True Comp. Univ. Amplifier	45	–	–	20-100	2.5	4	0.5	–	45	1	2.5	0.25	1.7	2.5
40627 Output, 20-W True Comp. Univ. Amplifier	55	–	–	20-100	2.5	4	0.5	–	55	1	2.5	0.25	1.7	2.5
40632 Output, 25-W Quasi-Comp. Univ. Amplifier	–	60	–	20- 70	3	4	0.5	–	50	1	3	0.3	1.4	3

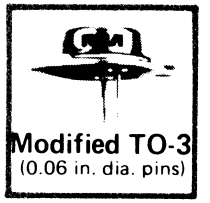


2N5578 FAMILY [n-p-n] (silicon)

f_T = 0.4 MHz min; P_T = 300 W max

2N TYPES														
2N5575 High-Current, High-Power	50	–	70▲	10-40	60	4	10●	20●	60	2	60	6	3	60
2N5578 High-Current, High-Power	70	–	90▲	10-40	40	4	10●	20●	80	1.5	40	4	2.5	40

▲$V_{CEX(sus)}$ ●I_{CEV}

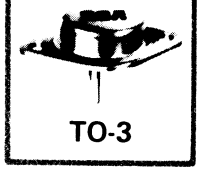


2N5671 FAMILY [n-p-n] (silicon)

f_T = 50 MHz min; P_T = 140 W max

2N TYPES														
2N5671 High-Current, High-Speed	90	110	120▲	20-100	15	2	12■	–	110	0.75	15	1.2	1.6	15
2N5672 High-Current, High-Speed	120	140	150▲	20-100	15	2	10■	–	135	0.75	15	1.2	1.6	15

▲$V_{CEX(sus)}$ ■I_{CEV}



2N5783 FAMILY [p-n-p] (silicon)

f_T = 8 MHz min; P_T = 10 W max

2N TYPES														
2N5783 PNP Complement of 2N5786	-40	-45	–	20-100	-1.6	-2	-10▲	-1	-40	-1	-1.6	-0.16	-1.5	-1.6
2N5782 PNP Complement of 2N5785	-50	-65	–	20-100	-1.2	-2	-10▲	-1	-50	-0.75	-1.2	-0.12	-1.5	-1.2
2N5781 PNP Complement of 2N5784	-65	-80	–	20-100	-1	-2	-10▲	-1	-65	-0.5	-1	-0.1	-1.5	-1
AUDIO TYPES														
40609 Output, 3-W Audio Amplifier	-25	–	–	20-100	-1	-1	-5▲	–	-25	–	–	–	–	–
40614 Output, 5-W Audio Amplifier	-30	–	–	20-100	-1.2	-1	-5▲	–	-25	–	–	–	–	–
40619 Output, 7-W Audio Amplifier	-32	–	–	20-100	-1.5	-1	-5▲	–	-25	–	–	–	–	–

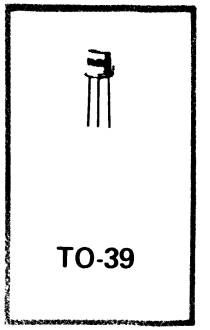
2N5786 FAMILY [n-p-n] (silicon)

▲I_{CER}–μA

f_T = 1 MHz min; P_T = 10 W max

2N TYPES														
2N5786 NPN Complement of 2N5783	40	45	–	20-100	1.6	2	10▲	1	40	1	1.6	0.16	1.5	1.6
2N5785 NPN Complement of 2N5782	50	65	–	20-100	1.2	2	10▲	1	50	0.75	1.2	0.12	1.5	1.2
2N5784 NPN Complement of 2N5781	65	80	–	20-100	1	2	10▲	1	65	0.5	1	0.1	1.5	1

▲I_{CER}–μA



2N5786 FAMILY [n-p-n] (silicon) [cont'd]

f_T = 1 MHz min; P_T = 10 W max

DESCRIPTION	$V_{CEO(sus)}$ V	$V_{CER(sus)}$ V	$V_{CEV(sus)}$ V	h_{FE}	I_C A	V_{CE} V	I_{CER}–mA Temp.–°C 25	150	V_{CE} V	$V_{CE(sat)}$–V I_C A	I_B A	V_{BE}–V I_C A	
AUDIO TYPES													
40610 Output, 3-W Audio Ampli.	25	–	–	20-100	1.2	1	1▲	–	25	–	–	–	–
40615 Output, 5-W Audio Ampli.	30	–	–	20-100	1.2	1	1▲	–	25	–	–	–	–
40620 Output, 7-W Audio Ampli.	32	–	–	20-100	1.5	1	1▲	–	25	–	–	–	–

▲I_{CER}–μA

TO-39

2N5804 FAMILY [n-p-n] (silicon)

f_T = 15 MHz min; P_T = 110 W max

2N TYPES														
2N5804 High Voltage, Fast Switch	225	300	–	10-100	5	4	5●	15■	270	2	5	0.5	2	5
2N5805 High Voltage, Fast Switch	300	375	–	10-100	5	4	5●	15■	340	2	5	0.5	2	5
OTHER TYPES														
40840 High Voltage, Fast Switch	300	375	–	10-100	4	3	5●	–	450	1.5	4	0.4	1.5	4
40853 Off-Line Switching-Regulator for Power Supplies	300	375	–	10 min.	5	4	1●	10▲	450	3	8	1.6	2	8

●I_{CEV} ■I_{CEV} @ 100°C ▲I_{CEV} @ 125°C

TO-3

2N5840 FAMILY [n-p-n] (silicon)

f_T = 5 MHz min; P_T = 100 W max

2N TYPES														
2N5838 High Voltage, Fast Switch	250	275	275	8-40	3	2	5●	8■	265	1	3	0.375	2	3
2N5839 High Voltage, Fast Switch	275	300	300	10-50	2	3	2●	5■	290	1.5	2	0.2	2	2
2N5840 High Voltage, Fast Switch	350	375	375	10-50	2	3	2●	5■	360	1.5	2	0.2	2	2
AUDIO TYPES														
41016 Output, 70-W Amplifier	100	120	-	10-50	4	4	1	–	90	2	4	0.8	2	4
OTHER TYPES														
410 † High Voltage, Inverter Applications	200	–	–	30-90	1	5	0.25*	0.5▲	200	0.8	1	0.1	1.5	1
411 † High Voltage, Inverter Applications	300	–	–	30-90	1	5	0.25	0.5▲	300	0.8	1	0.1	1.5	1
413 † High Voltage, Inverter Applications	325	–	–	20-80	0.5	5	0.25	0.5▲	400	0.8	0.5	0.05	1.5	0.5
423 † High Voltage, Inverter Applications	325	–	–	30-90	1	5	0.25	0.5▲	400	0.8	1	0.1	1.5	1
431 † High Voltage, Inverter Applications	325	–	–	15-35	2.5	5	2.5	5▲	400	0.7	2.5	0.5	1.5	2.5
40852 Off-Line Switching-Regulator for Power Supplies	350	375	–	12 min.	1.2	1	0.5●	5▲	450	3	4	0.8	2	4

●I_{CEV} ■I_{CEV} @ 100°C *I_{CEO} ▲I_{CEV} @ 125°C † Not recommended as replacement types.

2N5954 FAMILY [p-n-p] (silicon)

f_T = 5 MHz min; P_T = 40 W max

2N TYPES														
2N5956 General Purpose, Medium Power	-40	-45	-50▲	20-100	-3	-4	-100●		-35	-1	-3	-0.3	-2	-3
2N5955 General Purpose, Medium Power	-60	-65	-70▲	20-100	-2.5	-4	-100●		-55	-1	-2.5	-0.25	-2	-2.5
2N5954 General Purpose, Medium Power	-80	-85	-90▲	20-100	-2	-4	-100●		-75	-1	-2	-0.2	-2	-2

▲$V_{CEX(sus)}$ ●I_{CER}–μA

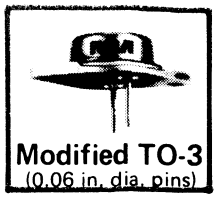
TO-66

2N6033 FAMILY [n-p-n] (silicon)

f_T = 50 MHz min; P_T = 140 W max

DESCRIPTION	$V_{CEO}(sus)$ V	$V_{CER}(sus)$ V	$V_{CEV}(sus)$ V	h_{FE}	I_C A	V_{CE} V	I_{CER}–mA Temp.–°C 25	150	V_{CE} V	$V_{CE}(sat)$–V I_C A	I_B A	V_{BE}–V I_C A
2N TYPES												
2N6032 High-Current, High-Speed Switch	90	110	120▲	10-50	50	2.6	12■	15●	110	1.3	50	5	2	50
2N6033 High-Current, High-Speed Switch	120	140	150▲	10-50	40	2	10■	10●	135	1	40	4	2	40

▲$V_{CEX}(sus)$ ■I_{CEV} ●At V_{CE} = 100 V

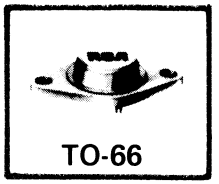


2N6079 FAMILY [n-p-n] (silicon)

f_T = 1 MHz min; P_T = 45 W max

2N TYPES														
2N6078 High Voltage, Fast Switch	250	275	275▲	12-70	1.2	1	0.05■	0.25●	250	0.5	1.2	0.2	1.6	1.2
2N6077 High Voltage, Fast Switch	275	300	300▲	12-70	1.2	1	5■	8●	250	0.5	1.2	0.2	1.6	1.2
2N6079 High Voltage, Fast Switch	350	375	375▲	12-50	1.2	1	0.5■	5●	450	0.5	1.2	0.2	1.6	1.2
OTHER TYPES														
40851 Off-Line Switching-Regulator for Power Supplies	350	375	–	12 min.	1.2	1	0.5■	5●	450	3	4	0.8	2	4

▲$V_{CEX}(sus)$ ■I_{CEV} ●I_{CEV} @ 125°C

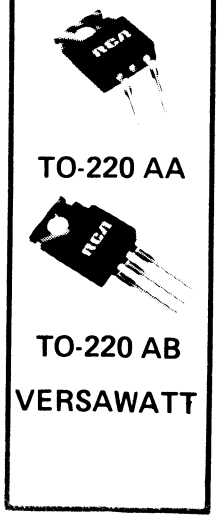


2N6103 PLASTIC FAMILY [n-p-n] (silicon)

f_T = 0.8 MHz min; P_T = 75 W max

2N & PRO-ELECTRON TYPES													
2N6102 Hometaxial-Base, TO-220 AA	40	45	–	15-60	8	4	2▲	10▲	40	2.5	16	3.2	1.7	8
2N6103 Hometaxial-Base, TO-220 AB	40	45	–	15-60	8	4	2▲	10▲	40	2.5	16	3.2	1.7	8
2N6098 Hometaxial-Base, TO-220 AA	60	65	–	20-80	4	4	2▲	10▲	65	2.5	10	2	1.7	4
2N6099 Hometaxial-Base, TO-220 AB	60	65	–	20-80	4	4	2▲	10▲	65	2.5	10	2	1.7	4
2N6100 Hometaxial-Base, TO-220 AA	70	75	–	20-80	5	4	2▲	10▲	75	2.5	10	2	1.7	5
2N6101 Hometaxial-Base, TO-220 AB	70	75	–	20-80	5	4	2▲	10▲	75	2.5	10	2	1.7	5
BD278 Hometaxial-Base, TO-220 AB	45	55	–	15.75	4	4	2▲	10●	55	1	4	04	1.8	4
BD278A Hometaxial-Base, TO-220 AB	45	55	–	30 Min	2	3	2▲	10●	55	1	4	0.4	1.8	4
AUDIO TYPES														
40884 Output, 40-W Full Comp. Univ. Amplifier	65	75	–	20-120	4	4	1	–	65	1	4	0.4	–	–

▲I_{CEX} ●I_{CEX} @50V



2N6107 PLASTIC FAMILY [p-n-p] (silicon)

f_T = 10 MHz min; P_T = 40 W max

2N & PRO-ELECTRON TYPES													
2N6110 Epitaxial-Base, TO-220AA	-30	-40	–	30-150	-3	-4	-0.1	-2●	-35	-1	-3	-0.3	-1.5	-3
2N6111 Epitaxial-Base, TO-220AB	-30	-40	–	30-150	-3	-4	-0.1	-2●	-35	1	-3	-0.3	-1.5	-3
2N6108 Epitaxial-Base, TO-220AA	-50	-60	–	30-150	-2.5	-4	-0.1	-2▲	-55	1	-2.5	-0.25	-1.5	-2.5
2N6109 Epitaxial-Base, TO-220AB	-50	-60	–	30-150	-2.5	-4	-0.1	-2▲	-55	1	-2.5	-0.25	-1.5	-2.5
2N6106 Epitaxial-Base, TO-220AA	-70	-80	–	30-150	-2	-4	-0.1	-2■	-75	-1	-2	-0.2	-1.5	-2
2N6107 Epitaxial-Base, TO-220AB	-70	-80	–	30-150	-2	-4	-0.1	-2■	-15	-1	-2	-0.2	-1.5	-2
BD277 Epitaxial-Base, TO-220AB	-45	—	—	30-150	-1.75	-2	—	—	—	0.5	-1.75	0.1	-1.2	-1.75
AUDIO TYPES														
40817 Output, 12-W Full Comp. Univ. Amplifier	–	-45	–	35-150	-2	-1	-0.5	–	-40	–	–	–	–	–

2N6107 PLASTIC FAMILY [p-n-p] (silicon) [cont'd]

f_T = 10 MHz min; P_T = 40 W max

DESCRIPTION

AUDIO TYPES

40876 Output, 25-W Full-Comp. Univ. Amplifier
40874 General Purpose

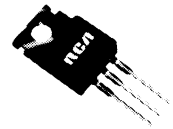
OTHER TYPES

BD240 Epitaxial-Base, TO-220 AB
BD240A Epitaxial-Base, TO-220 AB
BD240B Epitaxial-Base, TO-220 AB
BD240C Epitaxial-Base, TO-220AB
BD242 Epitaxial-Base, TO-220AB
BD242A Epitaxial - Base, TO220 AB
BD242B Epitaxial - Base, TO-220 AB
BD242C Epitaxial - Base, TO-220 AB
BD244 Epitaxial - Base, TO220 AB
BD244A Epitaxial-Base, TO-220 AB
BD244B Epitaxial - Base, TO220 AB
BD244C Epitaxial - Base, TO-220 AB

V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}	I_C A	V_{CE} V	I_{CER}–mA Temp.–°C 25	150	V_{CE} V	V_{CE}(sat)–V I_C A	I_B A	V_{BE}–V I_C A
-50	-60	–	20-120	-3	-4	-1	–	-50	-1	-3	-0.3	-1.5	-3
-70	-80	–	30-150	-2	-4	-1	–	-70	-1	-2	-0.2	-1.5	-2
-45	–	–	15	-1	-4	-0.2†	–	-45	-0.7	-1	-0.2	-1.3	-1
-60	–	–	15	-1	-4	-0.2†	–	-60	-0.7	-1	-0.2	-1.3	-1
-80	–	–	15	-1	-4	-0.2†	–	-80	-0.7	-1	-0.2	-1.3	-1
-100	–	–	15	-1	-4	-0.2†	–	-100	-0.7	-1	-0.2	-1.3	-1
-45	–	–	10	-3	-4	-0.2†	–	-45	-1.2	-3	-0.6	-1.8	-3
-60	–	–	10	-3	-4	-0.2†	–	-60	-1.2	-3	-0.6	-1.8	-3
-80	–	–	10	-3	-4	-0.2†	–	-80	-1.2	-3	-0.6	-1.8	-3
-100	–	–	10	-3	-4	-0.2†	–	-100	-1.2	-3	-0.6	-1.8	-3
-45	–	–	15	-3	-4	-0.4†	–	-45	-1.5	-6	-1.00	-2	-6
-60	–	–	15	-3	-4	-0.4†	–	-60	-1.5	-6	-1.00	-2	-6
-80	–	–	15	-3	-4	-0.4†	–	-80	-1.5	-6	-1.00	-2	-6
-100	–	–	15	-3	-4	-0.4†	–	-100	-1.5	-6	-1.00	-2	-6

● At V_{CE} = -30 V ▲ At V_{CE} = -50 V ■ At V_{CE} = -70 V *I_{CEO} †I_{CES}

TO-220 AA



TO-220 AB
VERSAWATT

2N6177 PLASTIC FAMILY [n-p-n] (silicon)

f_T = 20 MHz min; P_T = 20 W max

2N TYPES

2N6175 High Frequency, Fast Switch
2N6176 High Frequency, Fast Switch
2N6177 High Frequency, Fast Switch

250	300●	–	30-190	0.02	10	500■	–	300	0.5	0.05	0.004	1.3	0.05
300	350●	–	30-150	0.02	10	500■	–	300	0.5	0.05	0.004	1.3	0.05
350	400●	–	30-150	0.05	10	500■	–	450	0.5	0.05	0.004	1.3	0.05

● V_{CBO} ■ I_{CEV}

Plastic TO-5

2N6178 PLASTIC FAMILY [n-p-n] (silicon)

f_T = 50 MHz min; P_T = 25 W max

2N TYPES

2N6179 NPN Complement of 2N6181
2N6178 NPN Complement of 2N6180

50	65	75	**40-250**	0.5	4	1●	–	**45**	**0.8**	0.5	0.05	**1.5**	0.5
75	90	100	**30-130**	0.5	4	1●	–	**60**	**0.5**	0.5	0.05	**1.2**	0.5

● I_{CEO}

2N6180 PLASTIC FAMILY [p-n-p] (silicon)

f_T = 50 MHz min; P_T = 25 W max

DESCRIPTION

2N TYPES

2N6181 PNP Complement of 2N6179
2N6180 PNP Complement of 2N6178

$V_{CEO(sus)}$ V	$V_{CER(sus)}$ V	$V_{CEV(sus)}$ V	h_{FE} I_C A	h_{FE} V_{CE} V	I_{CEV}–mA Temp.–°C 25	I_{CEV}–mA Temp.–°C 150	I_{CEV}–mA V_{CE} V	$V_{CE(sat)}$–V I_C A	$V_{CE(sat)}$–V I_B A	V_{BE}–V I_C A	
-50	-65	-75	40-250	-0.5	-4	-1●	–	-45	-1.2	-0.5	-0.05	-1.5	-0.5
-75	-90	-100	30-130	-0.5	-4	-1●	–	-60	-0.7	-0.5	-0.05	-1.2	-0.5

●I_{CEO}

Plastic TO-5

2N6214 FAMILY [p-n-p] (silicon)

f_T = 20 MHz min; P_T = 35 W max

2N & PRO-ELECTRON TYPES

2N6211 High-Breakdown Voltage, Fast Switch
2N6212 High-Breakdown Voltage, Fast Switch
2N6213 High-Breakdown Voltage, Fast Switch
2N6214 High-Breakdown Voltage, Fast Switch
BUX66 High-Breakdown Voltage, Fast Switch
BUX66A High-Breakdown Voltage, Fast Switch
BUX66B High-Breakdown Voltage, Fast Switch
BUX66C High-Breakdown Voltage, Fast Switch

-225	-250	-275▲	10-100	-1	-2.8	-0.5	-5●	-250	-1.4	-1	-0.125	-1.4	-1
-300	-325	-350▲	10-100	-1	-3.2	-0.5	-5●	-315	-1.6	-1	-0.125	-1.4	-1
-350	-375	-400▲	10-100	-1	-4	-0.5	-5●	-360	-2	-1	-0.125	-1.4	-1
-400	-425	-450▲	10-100	-1	-5	-1	-10●	-410	-2.5	-1	-0.125	-1.4	-1
-150	-175	–	10-150	-1	-5	-8	-10●	-200	-1.5	-1	-0.15	-2.5	-1
-250	-275	–	10-150	-1	-5	-8	-10●	-300	-1.5	-1	-0.15	-2.5	-1
-300	-325	–	10-150	-1	-5	-8	-10●	-350	-1.5	-1	-0.15	-2.5	-1
-350	-375	–	10-150	-1	-5	-8	-10●	-400	-1.5	-1	-0.15	-2.5	-1

TO-66

AUDIO TYPES

40992 Class B Predriver, 200-W Amplifier

-175	-200	–	30-150	-0.3	-2	-0.1*	–	-120	–	–	–	-1	-0.3

▲$V_{CEX(sus)}$ ●I_{CEV}@ 100°C * I_{CER}

2N6248 FAMILY [p-n-p] (silicon)

f_T = 10 MHz min; P_T = 125 W max

2N & PRO-ELECTRON TYPES

2N6469 Epitaxial - Base, General Purpose
2N6246 Epitaxial-Base; General Purpose
2N6247 Epitaxial-Base, General Purpose
2N6248 Epitaxial-Base, General Purpose
BDX 18 Epitaxial - Base, General Purpose
BDX 18 N Epitaxial - Base, General Purpose

-40	-45	50▲	20-150	-5	-4	-0.2●	-5●	-45	-1.3	-5	-0.5	-3.5	-15
-60	-65	-70▲	20-100	-7	-4	-0.2●	-5■	-65	-1.3	-7	-0.7	-1.6	-7
-80	-85	-90▲	20-100	6	-4	-0.2●	-5*	-80	-1.3	-6	-0.6	-1.6	-6
-100	-105	-110▲	20-100	-5	-4	-0.2●	-5†	-100	-1.3	-5	-0.5	-2	-5
—	-70	-100▲	20-70	-4	-4	-5●	–	-100	-1.1	-4	-0.4	-1.8	-4
-60	—	-100▲	20-70	-4	-4	-5●	–	-100	-1.1	-4	-0.4	-1.8	-4

▲$V_{CEX(sus)}$ ●I_{CEX} ■At V_{CE} = -55 V *At V_{CE} = -70 V †At V_{CE} = -90 V

2N6251 FAMILY [n-p-n] (silicon)

f_T = 2.5 MHz min; P_T up to 150 W max

2N & PRO-ELECTRON TYPES

BUX17 High Voltage
BUX17A High Voltage
BUX17B High Voltage
BUX17C High voltage
2N6249 High-Voltage Switch
2N6250 High-Voltage Switch
2N6251 High-Voltage Switch

150	175	—	20 min.	4	3	10	20■	250	2	10	2	4	10
250	275	—	20 min.	4	3	10	20■	350	2	10	2	4	10
300	325	—	15 min.	4	3	5	10■	400	2	8	1.5	3.5	8
350	375	—	15 min.	4	3	5	10■	450	2	8	1.5	3.5	8
200	225	225▲	10-50	10	3	5	10■	225	1.5	10	1	2.25	10
275	300	300▲	8-50	10	3	5	10■	300	1.5	10	1.25	2.25	10
350	375	375▲	6-50	10	3	5	10■	375	1.5	10	1.67	2.25	10

TO-3

OTHER TYPES

40854 Off-Line Switching-Regulator for Power Supplies

300	325	–	8 min.	10	4	1	10■	450	3	16	3.2	3	16

▲$V_{CEX(sus)}$ ■I_{CEV}@ 125°C

2N6292 FAMILY [n-p-n] (silicon)

f_T = 4 MHz min; P_T = 40 W max

DESCRIPTION

2N TYPES

2N6288 Epitaxial-Base, TO-220AB
2N6289 Epitaxial-Base, TO-220AA
2N6290 Epitaxial-Base, TO-220A
2N6291 Epitaxial-Base, TO-220AA
2N6292 Epitaxial-Base, TO-220AB
2N6293 Epitaxial-Base, TO-220AA

AUDIO TYPES

40979 Output, 12-W Amplifier
40871 Driver, Audio Amplifier
40873 General Purpose
40875 Output Audio Amplifier

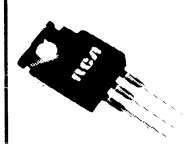
OTHER TYPES

BD239 Epitaxial - Base, TO-220 Ab
BD239A Epitaxial - Base, TO220 AB
BD239B Epitaxial - Base, TO-220 AB
BD239C Epitaxial - Base, TO220 AB
BD241 Epitaxial - Base, TO-220 AB
BD241A Epitaxial - Base, TO-220 AB
BD241B Epitaxial - Base, TO220 AB
BD241C Epitaxial - Base, TO-220 AB
BD243 Epitaxial - Base, TO-220 AB
BD243A Epitaxial - Base, TO-220 AB
BD243B Epitaxial - Base, TO-220 AB
BD243C Epitaxial - Base, TO-220 AB

V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}	I_C A	V_{CE} V	I_{CEV}–mA Temp.–°C 25	150	V_{CB} V	V_{CE}(sat)–V I_C A	I_B A	V_{BE}–V I_C A
30	40	40 ▲	30-150	3	4	0.1	2 ■	37.5	1	3	0.3	1.5	3
30	40	40 ▲	30-150	3	4	0.1	2 ■	37.5	1	3	0.3	1.5	3
50	60	60 ▲	30-150	2.5	4	0.1	2*	56	1	2.5	0.25	1.5	2.5
50	60	60 ▲	30-150	2.5	4	0.1	2*	56	1	2.5	0.25	1.5	2.5
70	80	80 ▲	30-150	2	4	0.1	2†	75	1	2	0.2	1.5	2
70	80	80 ▲	30-150	2	4	0.1	2†	75	1	2	0.2	1.5	2
40	50	-	50-250	1.5	4	0.01●	-	35	1	1.5	0.075	1.5	1.5
100	120	–	50-250	1	4	1 ●	–	110	1	1	0.1	1.5	1
70	80	–	30-150	2	4	1 ●	–	70	1	2	0.2	1.5	2
50	60	–	20-120	3	4	1 ●	–	50	1	3	0.3	1.5	3
45	–	–	15	1	4	0.2 #	–	45	0.7	1	– 0.2	1.3	1
60	–	–	15	1	4	0.2 #	–	60	0.7	1	– 0.2	1.3	1
80	–	–	15	1	4	0.2 #	–	80	0.7	1	– 0.2	1.3	1
100	–	–	15	1	4	0.2 #	–	100	0.7	1	– 0.2	1.3	1
45	–	–	10	3	4	0.2 #	–	45	1.2	3	–0.6	1.8	3
60	–	–	10	3	4	0.2 #	–	60	1.2	3	–0.6	1.8	3
80	–	–	10	3	4	0.2 #	–	80	1.2	3	–0.6	1.8	3
100	–	–	10	3	4	0.2 #	–	100	1.2	3	– 0.6	1.8	3
45	–	–	15	3	4	0.4 #	–	45	1.5	6	– 1.00	2.	6
60	–	–	15	3	4	0.4 #	–	60	1.5	6	– 1.00	2.	6
80	–	–	15	3	4	0.4 #	–	80	1.5	6	– 1.00	2.	6
100	–	–	15	3	4	0.4 #	–	100	1.5	6	– 1.00	2.	6

▲V_{CEX}(sus) ■At V_{CE} = 30 V *At V_{CE} = 50 V †At V_{CE} = 70 V ●I_{CER} #I_{CES}

TO-220 AA



TO-220 AB
VERSAWATT

2N6372 FAMILY [n-p-n] (silicon)

f_T = 4 MHz min; P_T = 40 W max

2N TYPES

2N6374 General Purpose
2N6373 General Purpose
2N6372 General Purpose

V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}	I_C A	V_{CE} V	I_{CEV}–mA Temp.–°C 25	150	V_{CB} V	V_{CE}(sat)–V I_C A	I_B A	V_{BE}–V I_C A
40	45	50 ▲	20-100	3	4	100●	2	45	1	3	0.3	2	3
60	65	70 ▲	20-100	2.5	4	100●	2	65	1	2.5	0.25	2	2.5
80	85	90 ▲	20-100	2	4	100●	2	85	1	2	0.2	2	2

▲V_{CEX}(sus) ●I_{CEX}–μA

TO-66

2N6385 Darlington FAMILY [n-p-n] (silicon)

Gain Bandwith = 20 MHz min @ f = 1 MHz; P_T = 100 W max

DESCRIPTION

2N TYPES

2N6383 Darlington
2N6384 Darlington
2N6385 Darlington
2N6055 Darlington
2N6056 Darlington

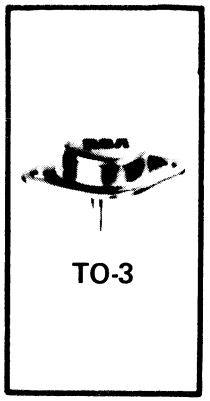
$V_{CEO(sus)}$ V	$V_{CER(sus)}$ V	$V_{CEV(sus)}$ V	h_{FE}	I_C A	V_{CE} V	I_{CEV}–mA Temp.–°C 25	150	V_{CE} V	$V_{CE(sat)}$–V I_C A	I_B A	V_{BE}–V I_C A
40	40	40	1000 min.	5	3	0.3	3	40	2 5	0.01	2.8 5
60	60	60	1000 min.	5	3	0.3	3	60	2 5	0.01	2.8 5
80	80	80	1000 min.	5	3	0.3	3	80	2 5	0.01	2.8 5
60	60	60	750 min.	4	3	0.5■	5■	60	2 4	0.016	2.8 4
80	80	80	750 min.	4	3	0.5■	5■	80	2 4	0.016	2.8 4

OTHER TYPES

RCA 1000 Darlington
RCA 1001 Darlington

60	-	-	1000 min.	3	3	1●	5●	60	2	3	0.012	2.5	3
80	-	-	1000 min.	3	3	1●	5●	80	2	3	0.012	2.5	3

●I_{CER} ■I_{CEX}



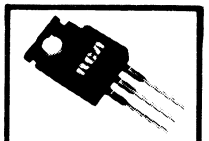
2N6388 Darlington FAMILY [n-p-n] (silicon)

Gain Bandwith = 20 MHz min @ = 1 MHz; P_T = 40 W max

2N6386 Darlington, TO-220 AB
2N6387 Darlington, TO-220 AB
2N6388 Darlington, TO-220 AB

40	40	40	1000 min.	3	3	0.3	3	40	2	3	0.006	2.8	3
60	60	60	1000 min.	5	3	0.3	3	60	2	5	0.01	2.8	5
80	80	80	1000 min.	5	3	0.3	3	80	2	5	0.01	2.8	5

Also available in TO-220 AA package.



VERSAWATT

2N6510 FAMILY [n-p-n] (Silicon)

P_T = 80–120 W

2N & PRO-ELECTRON TYPES

2N6510 High Voltage - Fast Switch
2N6511 High Voltage - Fast Switch
2N6512 High Voltage - Fast Switch
2N6513 High Voltage - Fast Switch
2N6514 High Voltage - Fast Switch
BUX18 High Voltage - Fast Switch
BUX18A High Voltage - Fast Switch
BUX18B High Voltage - Fast Switch
BUX18C High Voltage - Fast Switch

$V_{CEO(sus)}$	$V_{CER(sus)}$	$V_{CEV(sus)}$	h_{FE}	I_C (A)	V_{CE} (V)	I_{CEV}–mA Temp.–°C 25	150	V_{CE}	$V_{CE(sat)}$–V I_C (A)	I_B (A)	V_{BE} I_C (A)
200	250	–	10 Min	3	3	–	10●	250	1.5 3	0.6	1.7 3
250	300	–	10 Min	4	3	5	10●	300	1.5 4	0.8	1.7 4
300	350	–	10 Min	4	3	5	10●	350	1.5 4	0.8	1.7 4
350	400	–	10 Min	4	3	5	10●	400	1.5 4	0.8	1.7 4
300	350	–	10 Min	5	3	5	10●	450	1.5 5	1.0	1.7 5
200	250	–	7 Min	6	3	1	10●	300	2.5 6	1.2	1.5 6
275	325	–	7 Min	5	3	1	10●	350	2.5 5	1.0	1.5 4
325	375	–	10 Min	4	3	1	10●	400	2.5 4	0.8	1.5 4
375	425	–	10 Min	4	3	1	10●	475	2.5 4	0.8	1.5 4

●At T_c = 100°C

2N6537 FAMILY [N-P-N] (silicon)
P_T = 36 W Gain Bandwith = 20 MHz @ 1 MHz

2N6534 Darlington TO-66
2N6535 Darlington TO-66
2N6536 Darlington TO-66
2N6537 Darlington TO-66

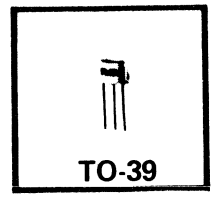
80	80	80	1000-10,000	5	3	0.5	5	80	2	5	0.01	2.8	5
100	100	100	1000-10,000	3	3	0.5	5	100	3	3	0.006	2.8	3
100	100	100	1000-10,000	5	3	0.5	5	100	2	5	0.01	2.8	5
120	120	120	1000-10,000	3	3	0.5	5	120	2	3	0.006	2.8	3

40349 FAMILY [n-p-n] (silicon)
f_T = 1.5 MHz min; P_T = 8.75 W max

40349 General Purpose, Low & Medium Power

140	–	160	30-125	0.15	4	2●	1000	90	0.5	0.15	0.015	1.1	0.15

●I_{CER}–μA



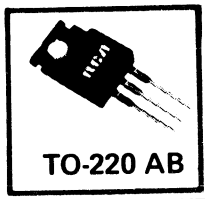
BDX33 Darlington FAMILY [n-p-n] (silicon)
P_T = 70 W Gain Bandwith = 20 MHz min @ = 1 MHz

PRO-ELECTRON TYPES

BDX33 Darlington, TO-220 AB
BDX33A Darlington, TO-220 AB
BDX33B Darlington, TO-220 AB
BDX33C Darlington, TO-220 AB
BDX33D Darlington, TO-220 AB

V_{CEO}(sus) V	V_{CER}(sus) V	V_{CEV}(sus) V	h_{FE}			I_{CEV}–mA Temp.–°C			V_{CE}(sat)–V			V_{BE}–V	
				I_C A	V_{CE} V	25	150	V_{CE} V		I_C A	I_B A		I_C A
45	45	45	750	4	3	0.5●	10●	20	2.5	4	0.008	2.5	4
60	60	60	750	4	3	0.5●	10●	30	2.5	4	0.008	2.5	4
80	80	80	750	3	3	0.5●	10●	40	2.5	3	0.006	2.5	3
100	100	100	750	3	3	0.5●	10●	50	2.5	3	0.006	2.5	3
120	120	120	750	3	3	0.5●	10●	60	2.5	3	0.006	2.5	3

●I_{CEO}



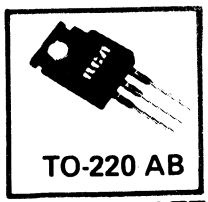
BDX34 Darlington FAMILY [p-n-p] (silicon)
P_T = 70 W Gain Bandwith = 20 MHz min @ = 1 MHz

PRO-ELECTRON TYPES

BDX34 Darlington, TO-220 AB
BDX34A Darlington, TO-220 AB
BDX34B Darlington, TO-220 AB
BDX34C Darlington, TO-220 AB

-45	-45	-45	750	-4	-3	-0.5●	-10●	-20	-2.5	-4	-0.008	-2.5	4
-60	-60	-60	750	-4	-3	-0.5●	-10●	-30	-2.5	-4	-0.008	-2.5	4
-80	-80	-80	750	-3	-3	-0.5●	-10●	-40	-2.5	-3	-0.006	-2.5	3
-100	-100	-100	750	-3	-3	-0.5●	-10●	-50	-2.5	-3	-0.006	-2.5	3

●I_{CEO}



RCA 8203● FAMILY [P-N-P] (silicon)
P_T = 60 W

RCA 8203 Darlington TO-220 AB
RCA 8203A Darlington TO-220 AB
RCA 8203B Darlington TO-220 AB

-40	-40	-40	1000-20,000	-3	-3	-0.3	-3	-40	-2	3	-0.006	-2.8	-3
-60	-60	-60	1000-20,000	-5	-3	-0.3	-3	-60	-2	5	-0.01	-2.8	-5
-80	-80	-80	1000-20,000	-5	-3	-0.3	-3	-80	-2	5	-0.01	-2.8	-5

● Do not use these transistors above T_j>150°C

RCA 8350● FAMILY [P-N-P] (silicon)
P_T = 100 W

RCA 8350 Darlington TO-3
RCA 8350A Darlington TO-3
RCA 8350B Darlington TO-3

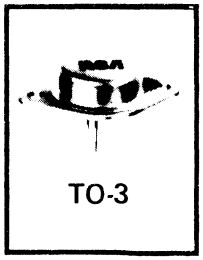
-40	-40	-40	1000-20,000	-5	-3	-0.3	-3	-40	-2	-5	-0.01	-2.8	-5
-60	-60	-60	1000-20,000	-5	-3	-0.3	-3	-60	-2	-5	-0.01	-2.8	-5
-80	-80	-80	1000-20,000	-5	-3	-0.3	-3	-80	-2	-5	-0.01	-2.8	-5

● Do not use these transistors above T_j>150°C

41013 FAMILY [n-p-n] (silicon)
P_T = 175 W max f_T = 60 MHz min

80	-	-	20 - 60	10	4	10●		120	1.4	10	1	2	10
125	-	-	20 - 60	10	4	10●		120	1.4	10	1	2	10

TV Applications ●I_{CBO}



OTHER TYPES

41012 High-Current, High-Speed Switch
41013 High-Current, High-Speed Switch

T.V. APPLICATIONS

BU106 FAMILY [n-p-n] (silicon)

P_T = 75 W Gain Bandwith = 3 MHz min

PRO-ELECTRON TYPES

BU106 Horizontal deflection type for small screen B/W

140	-	325	8 min	4	5	2	5●	325	5	4	0.5	1.5	4

●100°C

BU120 FAMILY [n-p-n] (silicon)

P_T = 100 W f_T = 6 MHz min

PRO-ELECTRON TYPES

BU120 High Voltage, Fast Switch

BU126 High Voltage, Fast Switch

200	-	400●	30-100	1.0	5.0	2*	-	400	1	4	0.8	2	4
300	–	750	15 - 60	1	5.0	.5●	2●	750	10	2.5	0.25	1.5	4

●V_{CES} I_{CES}

●I_{CES}

DEVELOPMENT TYPES

TA8764 FAMILY [h-p-n] (Silicon) P_T = 100 W

TA8764A High Voltage
TA8764B High Voltage
TA8764C High Voltage

250	–	750	4,25 Min	8.50	4	1	–	750	–	–	–	2.7	10
250	–	900	4.25 Min	8.50	4	1	–	900	–	–	–	2.7	10
250	–	1000	4,6 Min	5.5	2.2	1	–	1000	–	–	–	2.7	10

I_{CES} V_{CES}

TA8900 FAMILY [n-p-h] (Silicon) P_T = 120 W

TA8900A High Voltage
TA8900B High Voltage

300	450	–	12 Min	3	5	–	2.5	650	1.5	3	0.6	2.5	8
275	425	–	12 Min	3	5	–	2.5	550	1.5	3	0.6	2.5	8

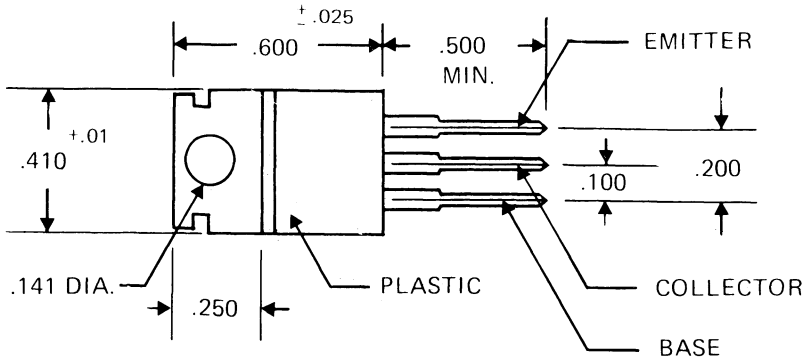
RCA 2N Series

RCA 40,000 Series

Pro-Electron Devices

LEAD FORMS FOR RCA PLASTIC POWER PACKAGES

TO-220 (VERSA WATT)



6200	
6201	.595
6202	.595
6204	.595

6205	.620, .156
6207	.595, .150, 00, .200
6208	30°
6209	.610, .150

Note: How to order special lead forming.

Examples: 2N6386 straight leads: 2N6386
2N6386 6201 lead forming: 2N6386/01
2N6477 straight leads: 2N6477
6201 lead forming: 2N6477/01
6207 lead forming: 2N6477/07

Power Transistor Directory

RCA Solid State