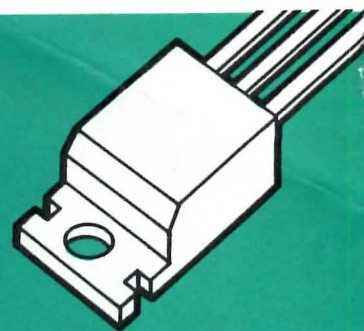


RCA



Thyristors Rectifiers

Consumer
Industrial

Optional Price 35 cents

THC-500B



Contents

	Page
Index of Thyristors/Rectifiers	4
Application Information	6
Data	
Triacs	8
SCRs	14
Rectifiers	19
Diacs	22
Designers Guide for Rectifier Circuits	26

Index—RCA Thyristors/Rectifier Series

Triacs	Page	Triacs	Page	Triacs	Page
2N5443 ...	12	2N5757 ...	8	40669	10
2N5446 ...	13	40430 ...	9	40671	12
2N5568 ...	10	40432 ...	9	40672	12
2N5570 ...	10	40486 ...	9	40900	10
2N5572 ...	11	40530 ...	8	40916	13
2N5574 ...	11	40576 ...	11	40919	13

SCRs

106	14	2N4102	14	40756	17
107	14	2N4103	17	40768	15
2N690	17	40216	18	40869	16
2N1850A ...	17	40555	15	40888	15
2N3653	18	40655	16	40945	14
2N3873	18	40740	16	TA7395	18
2N3899	18	40744	16	TA7884	15
2N4101	15	40752	17	TA8376	15

Rectifiers

1N445B ...	19	1N3756	19	44007	20
1N547	19	1N5214	20	CR101	24
1N1198A ..	23	1N5218	20	CR212	24
1N1190A ..	23	1N5399	21	CR301	24
1N1206A ..	23	40115	22	TA7895	20
1N1348B ..	22	40214	23	TA7901	21
1N1616 ...	22	40267	21	TA8003	21
1N1764A ..	19	40644	20	TA8164	21
1N2864A ..	20	40809	22	TA8379	21
1N3196 ...	19	40892	21		
1N3563 ...	19	40960	23		

Diacs

45411	22
45412	22

This new "Thyristor/Rectifier" Catalog, THC-500B, reflects the wide selection of thyristor devices (triacs, SCRs), diacs and rectifiers available from RCA. It includes data on 1N- and 2N-series (JEDEC) types, RCA 40000-series types, and RCA developmental (TA) types. Also included is information on applications of RCA thyristors.

In this catalog, thyristor and rectifier series are arranged in order of ascending current. The RCA line of Thyristors/Rectifiers offers designers one of industry's most complete selection of package configurations available, including stud, isolated-stud, press-fit, VERSAWATT (plastic), TO-3, "Modified TO-5", TO-66, and others.

Standard with RCA — Triacs that trigger in all four firing modes . . .

RCA has always controlled triac gate characteristics in all four firing modes . . . as standard product. Generally, in the industry this is done by special selection. The fact is, RCA specifies its triac line for service in the firing modes listed:

Firing Mode . . .

Gate Mode

■ In-phase triggering with the ac line	I ⁺	III ⁻
■ Inverse-phase control from an ac line	I ⁻	III ⁺
■ Positive dc-logic control	I ⁺	III ⁺
■ Negative dc-logic control	I ⁻	III ⁻

Any of these four firing modes opens up a wide range of potential uses across broad application areas of light control, power supplies and other power switching systems.

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.

Information furnished by RCA is believed to be accurate and reliable. However, no responsibility is assumed by RCA for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of RCA.

Copyright 1972 by RCA Corporation

Printed in England/5-72

Index – RCA Thyristors/Rectifiers

RCA Type No.	Data File No.	Product Line	Page No.
1N248C	6	R*	23
1N249C	6	R*	23
1N250C	6	R*	23
1N440B	5	R	19
1N441B	5	R	19
1N442B	5	R	19
1N443B	5	R	19
1N444B	5	R	19
1N445B	5	R	19
1N536	3	R	19
1N537	3	R	19
1N538	3	R	19
1N539	3	R	19
1N540	3	R	19
1N547	3	R	19
1N1095	3	R	19
1N1183A	38	R*	23
1N1184A	38	R*	23
1N1186A	38	R*	23
1N1187A	38	R*	23
1N1188A	38	R*	23
1N1189A	38	R*	23
1N1190A	38	R*	23
1N1195A	6	R*	23
1N1196A	6	R*	23
1N1197A	6	R*	23
1N1198A	6	R*	23
1N1199A	20	R*	23
1N1200A	20	R*	23
1N1202A	20	R*	23
1N1203A	20	R*	23
1N1204A	20	R*	23
1N1205A	20	R*	23
1N1206A	20	R*	23
1N1341B	58	R*	22
1N1342B	58	R*	22
1N1344B	58	R*	22
1N1345B	58	R*	22
1N1346B	58	R*	22
1N1347B	58	R*	22
1N1348B	58	R*	22
1N1612	18	R*	22
1N1613	18	R*	22
1N1614	18	R*	22
1N1615	18	R*	22
1N1616	18	R*	22
1N1763A	89	R	19
1N1764A	89	R	19
1N2858A	91	R	20
1N2859A	91	R	20
1N2860A	91	R	20
1N2861A	91	R	20
1N2862A	91	R	20
1N2863A	91	R	20
1N2864A	91	R	20
1N3193	41	R	19
1N3194	41	R	19
1N3195	41	R	19
1N3196	41	R	19
1N3253	41	R	19
1N3254	41	R	19
1N3255	41	R	19
1N3256	41	R	19
1N3563	41	R	19
1N3754	39	R	19
1N3755	39	R	19

RCA Type No.	Data File No.	Product Line	Page No.
1N3756	39	R	19
1N5211	245	R	20
1N5212	245	R	20
1N5213	245	R	20
1N5214	245	R	20
1N5215	245	R	20
1N5216	245	R	20
1N5217	245	R	20
1N5218	245	R	20
1N5391	478	R	21
1N5392	478	R	21
1N5393	478	R	21
1N5394	478	R	21
1N5395	478	R	21
1N5396	478	R	21
1N5397	478	R	21
1N5398	478	R	21
1N5399	478	R	21
2N681	96	SCR	17
2N682	96	SCR	17
2N683	96	SCR	17
2N684	96	SCR	17
2N685	96	SCR	17
2N686	96	SCR	17
2N687	96	SCR	17
2N688	96	SCR	17
2N689	96	SCR	17
2N690	96	SCR	17
2N1842A	28	SCR	17
2N1843A	28	SCR	17
2N1844A	28	SCR	17
2N1845A	28	SCR	17
2N1846A	28	SCR	17
2N1847A	28	SCR	17
2N1848A	28	SCR	17
2N1849A	28	SCR	17
2N1850A	28	SCR	17
2N3228	114	SCR	15
2N3525	114	SCR	15
2N3528	114	SCR	14
2N3529	114	SCR	14
2N3650	408	SCR	18
2N3651	408	SCR	18
2N3652	408	SCR	18
2N3653	408	SCR	18
2N3668	116	SCR	17
2N3669	116	SCR	17
2N3670	116	SCR	17
2N3870	578	SCR	18
2N3871	578	SCR	18
2N3872	578	SCR	18
2N3873	578	SCR	18
2N3896	578	SCR	18
2N3897	578	SCR	18
2N3898	578	SCR	18
2N3899	578	SCR	18
2N4101	114	SCR	15
2N4102	114	SCR	14
2N4103	116	SCR	17
2N5441	456	TRI	12
2N5442	456	TRI	12
2N5443	456	TRI	12
2N5444	456	TRI	13
2N5445	456	TRI	13
2N5446	456	TRI	13
2N5567	457	TRI	10

RCA Type No.	Data File No.	Product Line	Page No.
2N5568	457	TRI	10
2N5569	457	TRI	10
2N5570	457	TRI	10
2N5571	458	TRI	11
2N5572	458	TRI	11
2N5573	458	TRI	11
2N5574	458	TRI	11
2N5754	414	TRI	8
2N5755	414	TRI	8
2N5756	414	TRI	8
2N5757	414	TRI	8
106A	555	SCR	14
106B	555	SCR	14
106C	555	SCR	14
106D	555	SCR	14
106E	555	SCR	14
106F	555	SCR	14
106M	555	SCR	14
106Q	555	SCR	14
106Y	555	SCR	14
107A	555	SCR	14
107B	555	SCR	14
107C	555	SCR	14
107D	555	SCR	14
107E	555	SCR	14
107F	555	SCR	14
107M	555	SCR	14
107Q	555	SCR	14
107Y	555	SCR	14
40108	48	R*	22
40109	48	R*	22
40110	48	R*	22
40111	48	R*	22
40112	48	R*	22
40113	48	R*	22
40114	48	R*	22
40115	48	R*	22
40208	120	R*	23
40209	120	R*	23
40210	120	R*	23
40211	120	R*	23
40212	120	R*	23
40213	120	R*	23
40214	120	R*	23
40216	247	SCR	18
40266	75	R	21
40267	75	R	21
40429	351	TRI	9
40430	351	TRI	9
40431	477	TRI	9
40432	477	TRI	9
40485	352	TRI	9
40486	352	TRI	9
40502	351	TRI	9
40503	351	TRI	9
40504	266	SCR	15
40505	266	SCR	15
40506	266	SCR	15
40509	352	TRI	9
40510	352	TRI	9
40511	477	TRI	9
40512	477	TRI	9
40525	470	TRI	8
40526	470	TRI	8

RCA Type No.	Data File No.	Product Line	Page No.
40527	470	TRI	8
40528	470	TRI	8
40529	470	TRI	8
40530	470	TRI	8
40531	470	TRI	8
40532	470	TRI	8
40533	470	TRI	8
40534	470	TRI	8
40535	470	TRI	8
40536	470	TRI	8
40553	306	SCR	15
40554	306	SCR	15
40555	306	SCR	15
40575	300	TRI	11
40576	300	TRI	11
40638	352	TRI	9
40639	352	TRI	9
40640	354	SCR	15
40641	354	SCR	15
40642	354	R	20
40643	354	R	20
40644	354	R	20
40654	362	SCR	16
40655	362	SCR	16
40656	362	SCR	16
40657	362	SCR	16
40658	362	SCR	16
40659	362	SCR	16
40660	459	TRI	12
40661	459	TRI	12
40662	459	TRI	12
40663	459	TRI	12
40664	375	TRI	9
40667	375	TRI	9
40668	364	TRI	10
40669	364	TRI	10
40671	459	TRI	12
40672	459	TRI	12
40680	578	SCR	18
40681	578	SCR	18
40682	578	SCR	18
40683	578	SCR	18
40684	414	TRI	8
40685	414	TRI	8
40686	414	TRI	8
40687	414	TRI	8
40688	456	TRI	13
40689	456	TRI	13
40690	456	TRI	13
40691	431	TRI	8
40692	431	TRI	8
40693	406	TRI	8
40694	406	TRI	8
40695	406	TRI	8
40696	406	TRI	8
40697	406	TRI	8
40698	406	TRI	8
40699	406	TRI	12
40700	406	TRI	12
40701	406	TRI	12
40702	406	TRI	13
40703	406	TRI	13
40704	406	TRI	13
40705	406	TRI	12

* Reverse-polarity version available

Index – RCA Thyristors/Rectifiers (cont'd)

RCA Type No.	Data File No.	Prod-uct Line	Page No.	RCA Type No.	Data File No.	Prod-uct Line	Page No.	RCA Type No.	Data File No.	Prod-uct Line	Page No.	RCA Type No.	Data File No.	Prod-uct Line	Page No.
40706	406	TRI	12	40776	443	TRI	10	40948	352	TRI	9	CR331	60	R	24
40707	406	TRI	12	40777	443	TRI	10	40949	352	TRI	9	CR332	60	R	24
40708	406	TRI	12	40778	443	TRI	10	40950	352	TRI	9	CR333	60	R	24
40709	406	TRI	12	40779	443	TRI	10	40952	578	SCR	18	CR334	60	R	24
40710	406	TRI	12	40780	443	TRI	10	40956	580	R*	23	CR335	60	R	24
40711	406	TRI	11	40781	443	TRI	10	40957	580	R*	23	CR341	60	R	25
40712	406	TRI	11	40782	443	TRI	10	40958	580	R*	23	CR342	60	R	25
40713	406	TRI	11	40783	443	TRI	11	40959	580	R*	23	CR343	60	R	25
40714	406	TRI	11	40784	443	TRI	11	40960	580	R*	23	CR344	60	R	25
40715	406	TRI	11	40785	443	TRI	11	44001	495	R	20	CR351	60	R	25
40716	406	TRI	11	40786	443	TRI	11	44002	495	R	20	CR352	60	R	25
40717	406	TRI	10	40787	487	TRI	12	44003	495	R	20	CR353	60	R	25
40718	406	TRI	10	40788	487	TRI	12	44004	495	R	20	CR354	60	R	25
40719	406	TRI	10	40789	487	TRI	12	44005	495	R	20	TA7393	**	SCR	18
40720	406	TRI	10	40790	487	TRI	12	44006	495	R	20	TA7394	**	SCR	18
40721	406	TRI	10	40791	487	TRI	12	44007	495	R	20	TA7395	**	SCR	18
40722	406	TRI	10	40792	487	TRI	12	45411	577	DA	22	TA7884	**	SCR	15
40723	406	TRI	9	40793	487	TRI	13	45412	577	DA	22	TA7885	**	SCR	15
40724	406	TRI	9	40794	487	TRI	13	CR101	84	R	24	TA7886	**	R	21
40725	406	TRI	9	40795	457	TRI	10	CR102	84	R	24	TA7887	**	R	21
40726	406	TRI	9	40796	457	TRI	10	CR103	84	R	24	TA7892	**	R	20
40727	406	TRI	9	40797	458	TRI	11	CR104	84	R	24	TA7893	**	R	20
40728	406	TRI	9	40798	458	TRI	11	CR105	84	R	24	TA7894	**	R	20
40729	406	TRI	9	40799	457	TRI	10	CR106	84	R	24	TA7895	**	R	20
40730	406	TRI	9	40800	457	TRI	10	CR107	84	R	24	TA7898	**	R	21
40731	406	TRI	9	40801	457	TRI	10	CR108	84	R	24	TA7899	**	R	21
40732	406	TRI	9	40802	458	TRI	11	CR109	84	R	24	TA7900	**	R	21
40733	406	TRI	9	40803	458	TRI	11	CR110	84	R	24	TA7901	**	R	21
40734	406	TRI	9	40804	458	TRI	11	CR201	86	R	24	TA8003	**	R	21
40735	408	SCR	18	40805	459	TRI	12	CR203	86	R	24	TA8160	**	R	21
40737	417	SCR	16	40806	459	TRI	12	CR204	86	R	24	TA8161	**	R	21
40738	417	SCR	16	40807	459	TRI	12	CR206	86	R	24	TA8162	**	R	21
40739	417	SCR	16	40808	449	R	22	CR208	86	R	24	TA8163	**	R	21
40740	417	SCR	16	40809	449	R	22	CR210	86	R	24	TA8164	**	R	21
40741	417	SCR	16	40833	496	SCR	16	CR212	86	R	24	TA8376	**	SCR	15
40742	417	SCR	16	40834	496	SCR	16	CR273/				TA8377	**	SCR	15
40743	417	SCR	16	40835	496	SCR	16	8008	100	R	25	TA8378	**	R	21
40744	417	SCR	16	40842	493	TRI	10	CR274/				TA8379	**	R	21
40745	417	SCR	16	40867	501	SCR	16	872A	100	R	25				
40746	417	SCR	16	40868	501	SCR	16	CR275/							
40747	417	SCR	16	40869	501	SCR	16	866A/							
40748	417	SCR	16	40888	522	SCR	15	3B25/							
40749	418	SCR	17	40889	522	SCR	15	3B28/	100	R	25				
40750	418	SCR	17	40890	522	R	21	CR280	86	R	24				
40751	418	SCR	17	40891	522	R	21	CR301	60	R	24				
40752	418	SCR	17	40892	522	R	21	CR302	60	R	24				
40753	418	SCR	17	40900	540	TRI	10	CR303	60	R	24				
40754	418	SCR	17	40901	540	TRI	10	CR304	60	R	24				
40755	418	SCR	17	40902	540	TRI	10	CR305	60	R	24				
40756	418	SCR	17	40916	549	TRI	13	CR306	60	R	24				
40757	418	SCR	17	40917	549	TRI	13	CR307	60	R	24				
40758	418	SCR	17	40918	549	TRI	13	CR311	60	R	24				
40759	418	SCR	17	40919	549	TRI	13	CR312	60	R	24				
40760	418	SCR	17	40920	549	TRI	13	CR313	60	R	24				
40761	431	TRI	8	40921	549	TRI	13	CR314	60	R	24				
40762	431	TRI	8	40922	549	TRI	13	CR315	60	R	24				
40766	431	TRI	8	40923	549	TRI	13	CR316	60	R	24				
40767	431	TRI	8	40924	549	TRI	13	CR317	60	R	24				
40768	476	SCR	15	40937	578	SCR	18	CR321	60	R	24				
40769	441	TRI	8	40938	578	SCR	18	CR322	60	R	24				
40770	441	TRI	8	40942	567	SCR	14	CR323	60	R	24				
40771	441	TRI	8	40943	567	SCR	14	CR324	60	R	24				
40772	441	TRI	8	40944	567	SCR	14	CR325	60	R	24				
40773	442	TRI	9	40945	567	SCR	14								
40774	442	TRI	9	40946	351	TRI	9								
40775	443	TRI	10	40947	351	TRI	9								

"Product Line" Symbols for Index

DA — Diac
R — Rectifier
SCR — Silicon Controlled Rectifier
TRI — Triac

* Reverse-polarity version available
** TA type data sheet available

LOW-CURRENT SENSITIVE-GATE TRIACS

For Low-Power Phase Control and Load Switching Applications
Ideal for use with economical transistorized or IC control circuits

$I_{T(RMS)} = 1.6 \text{ A} - 2.5 \text{ A } (V_{DROM} = 100 \text{ V})$ Gate trigger current, $I_{GT} = 3 \text{ mA}$ (all modes) 40525 Modified TO-5 40531 40525 with Heat Radiator Gate trigger current $I_{GT} = 4 \text{ mA}$ (all modes) 40766 Modified TO-5 40767 40766 with Heat Radiator Gate trigger current $I_{GT} = 10 \text{ mA}$ (all modes) 40528 Modified TO-5 40534 40528 with Heat Radiator	$I_{T(RMS)} = 1.6 \text{ A} - 2.5 \text{ A } (V_{DROM} = 200 \text{ V})$ Gate trigger current, $I_{GT} = 3 \text{ mA}$ (all modes) 40526 Modified TO-5 40532 40526 with Heat Radiator Gate trigger current, $I_{GT} = 4 \text{ mA}$ (all modes) 40691 Modified TO-5 40761 40691 with Heat Radiator Gate trigger current, $I_{GT} = 10 \text{ mA}$ (all modes) 40529 Modified TO-5 40535 40529 with Heat Radiator	$I_{T(RMS)} = 1.6 \text{ A} - 2.5 \text{ A } (V_{DROM} = 400 \text{ V})$ Gate trigger current, $I_{GT} = 3 \text{ mA}$ (all modes) 40527 Modified TO-5 40533 40527 with Heat Radiator Gate trigger current $I_{GT} = 4 \text{ mA}$ (all modes) 40692 Modified TO-5 40762 40692 with Heat Radiator Gate trigger current $I_{GT} = 10 \text{ mA}$ (all modes) 40530 Modified TO-5 40536 40530 with Heat Radiator
---	---	---

400-Hz TRIACS

For Control-Systems Application In Airborne-Type Equipment

$I_{T(RMS)} = 0.5 \text{ A @ } T_C = 90^\circ\text{C}$ 40769 Modified TO-5, $V_{DROM}=200\text{V}$ (40530) 40770 Modified TO-5, $V_{DROM}=400\text{V}$ (40530) 40771 Modified TO-5, $V_{DROM}=200\text{V}$ (2N5757) 40772 Modified TO-5, $V_{DROM}=400\text{V}$ (2N5757) $I_{T(RMS)} = 2.5 \text{ A @ } T_C = 90^\circ\text{C}$ 40773 Modified TO-5, $V_{DROM}=200\text{V}$ (40486) 40774 Modified TO-5, $V_{DROM}=400\text{V}$ (40486)	$I_{T(RMS)} = 6 \text{ A @ } T_C = 90^\circ\text{C}$ 40775 Press-fit, $V_{DROM}=200\text{V}$ (2N5568) 40776 Press-fit, $V_{DROM}=400\text{V}$ (2N5568) 40777 Stud, $V_{DROM}=200\text{V}$ (2N5570) 40778 Stud, $V_{DROM}=400\text{V}$ (2N5570) $I_{T(RMS)} = 10 \text{ A @ } T_C = 85^\circ\text{C}$ 40779 Press-fit, $V_{DROM}=200\text{V}$ (2N5568) 40780 Press-fit, $V_{DROM}=400\text{V}$ (2N5568) 40781 Stud, $V_{DROM}=200\text{V}$ (2N5570) 40782 Stud, $V_{DROM}=400\text{V}$ (2N5570) $I_{T(RMS)} = 15 \text{ A @ } T_C = 80^\circ\text{C}$ 40783 Press-fit, $V_{DROM}=200\text{V}$ (2N5572) 40784 Press-fit, $V_{DROM}=400\text{V}$ (2N5572) 40785 Stud, $V_{DROM}=200\text{V}$ (2N5574) 40786 Stud, $V_{DROM}=400\text{V}$ (2N5574)	$I_{T(RMS)} = 25 \text{ A @ } T_C = 85^\circ\text{C}$ 40787 Press-fit, $V_{DROM}=200\text{V}$ (40661) 40788 Press-fit, $V_{DROM}=400\text{V}$ (40661) $I_{T(RMS)} = 25 \text{ A @ } T_C = 80^\circ\text{C}$ 40789 Stud, $V_{DROM}=200\text{V}$ (40663) 40790 Stud, $V_{DROM}=400\text{V}$ (40663) $I_{T(RMS)} = 40 \text{ A @ } T_C = 70^\circ\text{C}$ 40791 Press-fit, $V_{DROM}=200\text{V}$ (2N5442) 40792 Press-fit, $V_{DROM}=400\text{V}$ (2N5442) $I_{T(RMS)} = 40 \text{ A @ } T_C = 65^\circ\text{C}$ 40793 Stud, $V_{DROM}=200\text{V}$ (2N5445) 40794 Stud, $V_{DROM}=400\text{V}$ (2N5445)
--	--	--

TRIACS

That Utilize The CA3059 Zero-Voltage Switch As Triggering Circuit

$I_{T(RMS)} = 2.5 \text{ A } (V_{DROM}=100 \text{ V})$ 40693 Modified TO-5 with Heat Radiator (40684) 40696 Modified TO-5 (2N5754) $I_{T(RMS)} = 2.5 - 40 \text{ A } (V_{DROM}=200 \text{ V})$ 40694 Modified TO-5 with Heat Radiator (40685) 40697 Modified TO-5 (2N5755) 40699 Press-fit (2N5441) 40702 Stud (2N5444) 40705 Press-fit (40660) 40707 Stud (40662) 40711 Press-fit (2N5571) 40713 Stud (2N5573) 40715 TO-66 (40575) 40717 Press-fit (2N5567) 40719 Stud (2N5569) 40721 VERSAWATT (40668) 40725 Modified TO-5 (40485) 40727 TO-66 (40429) 40729 TO-66 with Heat Radiator (40502) 40731 Modified TO-5 with Heat Radiator (40509) 40733 Modified TO-5 with Heat Spreader (40638)	$I_{T(RMS)} = 2.5 - 40 \text{ A } (V_{DROM}=400 \text{ V})$ 40695 Modified TO-5 with Heat Radiator (40686) 40698 Modified TO-5 (2N5756) 40700 Press-fit (2N5442) 40703 Stud (2N5445) 40706 Press-fit (40661) 40708 Stud (40663) 40712 Press-fit (2N5572) 40714 Stud (2N5574) 40716 TO-66 (40576) 40718 Press-fit (2N5568) 40720 Stud (2N5570) 40722 VERSAWATT (40669) 40723 Modified TO-5, $V_{DROM} = 450 \text{ V}$ (40664) 40724 Modified TO-5, with Heat Radiator, $V_{DROM} = 450 \text{ V}$ (40667) 40726 Modified TO-5 (40486) 40728 TO-66 (40430) 40730 TO-66 with Heat Radiator (40503) 40732 Modified TO-5 with Heat Radiator (40510) 40734 Modified TO-5 with Heat Spreader (40639) $I_{T(RMS)} = 30 \text{ \& } 40 \text{ A } (V_{DROM}=600 \text{ V})$ 40701 Press-fit (2N5443) 40704 Stud (2N5446) 40709 Press-fit (40671) 40710 Stud (40672)
--	--

Type numbers in parentheses relate to triac series.

On request, press-fit package types are available with isolated stud.

APPLICATION INFORMATION

SCRs

For Inverter and Radar Pulse-Modulator Applications

Turn-Off Time (t_q) — 6 μ s to 40 μ s . . . Current I_T (RMS) to 40 A

I_T (RMS) = 5 A (TO-66)	I_T (RMS) = 35 A (TO-48)		I_T (RMS) = 35 A (TO-48)	I_T (RMS) = 40 A (TO-48)
40555 $V_{DROM} = 600$ V $V_{RROM} = 600$ V $I_{GT} = 40$ mA max. $V_{GT} = 3.5$ V max. $dv/dt = 250$ V/ μ s typ. $t_q = 6$ μ s max.	40735 $V_{DROM} = 600$ V $V_{RROM} = 600$ V $I_{GT} = 180$ mA max. $V_{GT} = 3$ V max. $dv/dt = 200$ V/ μ s min. $t_q = 15$ μ s max.	2N3651 $V_{DROM} = 200$ V $V_{RROM} = 200$ V $I_{GT} = 180$ mA max. $V_{GT} = 3$ V max. $dv/dt = 200$ V/ μ s min. $t_q = 15$ μ s max.	40216♦ $V_{DROM} = 600$ V $V_{RROM} = 600$ V $I_{GT} = 80$ mA max. $V_{GT} = 2$ V max. $dv/dt = 50$ V/ μ s typ. $t_q = 40$ μ s max.	TA7395 $V_{DROM} = 600$ V $V_{RROM} = 600$ V $I_{GT} = 80$ mA max. $V_{GT} = 3$ V max. $dv/dt = 400$ V/ μ s typ. $t_q = 15$ μ s max.
40554 $V_{DROM} = 400$ V $V_{RROM} = 400$ V $I_{GT} = 40$ mA max. $V_{GT} = 3.5$ V max. $dv/dt = 250$ V/ μ s typ. $t_q = 6$ μ s max.	2N3653 $V_{DROM} = 400$ V $V_{RROM} = 400$ V $I_{GT} = 180$ mA max. $V_{GT} = 3$ V max. $dv/dt = 200$ V/ μ s min. $t_q = 15$ μ s max.	2N3650 $V_{DROM} = 100$ V $V_{RROM} = 100$ V $I_{GT} = 180$ mA max. $V_{GT} = 3$ V max. $dv/dt = 200$ V/ μ s min. $t_q = 15$ μ s max.		TA7394 $V_{DROM} = 400$ V $V_{RROM} = 400$ V $I_{GT} = 80$ mA max. $V_{GT} = 3$ V max. $dv/dt = 400$ V/ μ s typ. $t_q = 15$ μ s max.
40553 $V_{DROM} = 200$ V $V_{RROM} = 200$ V $I_{GT} = 40$ mA max. $V_{GT} = 3.5$ V max. $dv/dt = 250$ V/ μ s typ. $t_q = 6$ μ s max.	2N3652 $V_{DROM} = 300$ V $V_{RROM} = 300$ V $I_{GT} = 180$ mA max. $V_{GT} = 3$ V max. $dv/dt = 200$ V/ μ s min. $t_q = 15$ μ s max.	♦ Peak Pulse Current = 900 A		TA7393 $V_{DROM} = 200$ V $V_{RROM} = 200$ V $I_{GT} = 80$ mA max. $V_{GT} = 3$ V max. $dv/dt = 400$ V/ μ s typ. $t_q = 15$ μ s max.

SCRs

For Horizontal-Deflection Circuits of Large-Screen Color-TV Receivers

90° Deflection Angle, $B^+ = 155$ V 40640 Trace 40641 Commutating I_T (RMS) = 5 A @ $T_C = 60^\circ\text{C}$ $V_{DROM} = 600$ V $V_{RROM} = 5$ V $t_q = 2.5$ μ s max. (40640) $= 4.5$ μ s max. (40641) Package: TO-66	110° Deflection Angle, $B^+ = 150$ to 200 V TA7884 Trace TA7885 Commutating I_T (RMS) = 5 A @ $T_C = 60^\circ\text{C}$ $V_{DROM} = 600$ V (TA7884) $= 550$ V (TA7885) $V_{RROM} = 25$ V $t_q = 2.5$ μ s max. (TA7884) $= 4$ μ s max. (TA7885) Package: TO-66	110° Deflection Angle, $B^+ = 270$ V 40888 Trace 40889 Commutating I_T (RMS) = 5 A @ $T_C = 60^\circ\text{C}$ $V_{DROM} = 750$ V (40888) $= 700$ V (40889) $V_{RROM} = 15$ V $t_q = 2.4$ μ s max. (40888) $= 4.2$ μ s max. (40889) Package: TO-66
Complementary Rectifiers 40642 Trace DO-26 40643 Commutating DO-26 40644 Clamp DO-26	Complementary Rectifiers TA7886 Trace DO-1 TA7887 Commutating DO-1 TA8003 Clamp DO-1	Complementary Rectifiers 40890 Trace DO-1 40891 Commutating DO-1 40892 Clamp DO-1

Also available . . . 150-V Fast Recovery Rectifiers for
Application in 110° Large Screen Color TV Receivers

SCRs

For Ignition Service, Crowbars, Fuel Igniters,
Alternator Circuits, and other Capacitive-Discharge Systems

Type	V_{DROM} V_{RROM} V	I_T (RMS) A	Package	Type	V_{DROM} V_{RROM} V	I_T (RMS) A	Package	Type	V_{DROM} V_{RROM} V	I_T (RMS) A	Package
106Q	15	4	TO-220AB	40654	200	7	Low Profile TO-5	40869	400	8	TO-220AB
107Q	15	4	TO-220AB	40656	200	7	Low Profile TO-5 on heat spreader	40944	400	4.5	TO-8
106Y	30	4	TO-220AB	40658	200	3.3	Low Profile TO-5 on heat radiator	106E	500	4	TO-220AB
107Y	30	4	TO-220AB	40868	200	8	TO-220AB	107E	500	4	TO-220AB
106F	50	4	TO-220AB	40943	200	4.5	TO-8	2N4101	600	5	TO-66
107F	50	4	TO-220AB	106C	300	4	TO-220AB	2N4102	600	2	TO-8
106A	100	4	TO-220AB	107C	300	4	TO-220AB	106M	600	4	TO-220AB
107A	100	4	TO-220AB	2N3525	400	5	TO-66	107M	600	4	TO-220AB
40867	100	8	TO-220AB	2N3529	400	2	TO-8	40506	600	1.7	TO-66 on heat radiator
40942	100	4.5	TO-8	106D	400	4	TO-220AB	40833	600	7	Low Profile TO-5
2N3228	200	5	TO-66	107D	400	4	TO-220AB	40834	600	7	Low Profile TO-5 on heat spreader
2N3528	200	2	TO-8	40505	400	5	TO-66 on heat radiator	40835	600	3.3	Low Profile TO-5 on heat radiator
106A	200	4	TO-220AB	40655	400	7	Low Profile TO-5	40945	600	4.5	TO-8
106B	200	4	TO-220AB	40657	400	7	Low Profile TO-5 on heat spreader				
40504	200	1.7	TO-66 on heat radiator	40659	400	3.3	Low Profile TO-5 on heat radiator				

2N5757 SERIES (Triacs)

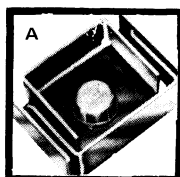
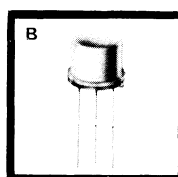
Surge Current (I_{TSM}) = 25 A, Power Control to 1.0 kW

	RCA TYPE	Current		Package (See Below)	Voltage V _{DROM} V	Temp. Range Operating °C	Max. Gate Trigger Current I _{GT} -mA●				Critical Rate-of-Rise of:			Thermal			
		I _T (RMS) A	Temp., T _c °C				Current I _{GT} -mA● Modes				Commutation Voltage dv/dt - V/μs		Off-State Voltage dv/dt - V/μs		Resistance (θ) _{J-c} °C/W		
							1 ⁺	111 ⁻	1 ⁻	111 ⁺	Min.	Typ.	T _c -°C	Min.	Typ.	T _c -°C	
50/60-Hz Types	2N5754	2.5	70	B	100	-65 to 100	25	25	40	40	2	8	70	10	100	100	8.5
	2N5755	2.5	70	B	200	-65 to 100	25	25	40	40	2	8	70	10	100	100	8.5
	2N5756	2.5	70	B	400	-65 to 100	25	25	40	40	2	8	70	10	100	100	8.5
	2N5757	2.5	70	B	600	-65 to 100	25	25	40	40	2	8	70	10	100	100	8.5
	40684	1.9	25●	A	100	-65 to 100	25	25	40	40	2	10	25●	10	100	100	30▲
	40685	1.9	25●	A	200	-65 to 100	25	25	40	40	2	10	25●	10	100	100	30▲
	40686	1.9	25●	A	400	-65 to 100	25	25	40	40	2	10	25●	10	100	100	30▲
	40687	1.9	25●	A	600	-65 to 100	25	25	40	40	2	10	25●	10	100	100	30▲
Zero- Voltage Switch Types	40693	2.5	70	A	100	-40 to 100	45	—	—	45	2	—	70	10	—	100	30▲
	40694	2.5	70	A	200	-40 to 100	45	—	—	45	2	—	70	10	—	100	30▲
	40695	2.5	70	A	400	-40 to 100	45	—	—	45	2	—	70	10	—	100	30▲
	40696	2.5	70	B	100	-40 to 100	45	—	—	45	2	—	70	10	—	100	8.5
	40697	2.5	70	B	200	-40 to 100	45	—	—	45	2	—	70	10	—	100	8.5
	40698	2.5	70	B	400	-40 to 100	45	—	—	45	2	—	70	10	—	100	8.5

40530 SERIES (Triacs — Sensitive gate types)

Surge Current (I_{TSM}) = 25 A, Power Control to 0.6 kW

50/60-Hz Types	40525	2.5	60	B	100	-40 to 90	3	3	3	3	—	5	60	—	5	90	8.5
	40526	2.5	60	B	200	-40 to 90	3	3	3	3	—	5	60	—	5	90	8.5
	40527	2.5	60	B	400	-40 to 90	3	3	3	3	—	5	60	—	5	90	8.5
	40766	2.5	60	B	100	-40 to 90	4	4	4	4	—	5	60	—	5	90	8.5
	40691	2.5	60	B	200	-40 to 90	4	4	4	4	—	5	60	—	5	90	8.5
	40692	2.5	60	B	400	-40 to 90	4	4	4	4	—	5	60	—	5	90	8.5
	40528	2.5	70	B	100	-40 to 100	10	10	10	10	—	5	70	—	10	100	8.5
	40529	2.5	70	B	200	-40 to 100	10	10	10	10	—	5	70	—	10	100	8.5
	40530	2.5	70	B	400	-40 to 100	10	10	10	10	—	5	70	—	10	100	8.5
	40531	1.6	25●	A	100	-40 to 90	3	3	3	3	—	5	25●	—	5	90	35▲
	40532	1.6	25●	A	200	-40 to 90	3	3	3	3	—	5	25●	—	5	90	35▲
	40533	1.6	25●	A	400	-40 to 90	3	3	3	3	—	5	25●	—	5	90	35▲
	40767	1.6	25●	A	100	-40 to 90	4	4	4	4	—	5	25●	—	5	90	35▲
	40761	1.6	25●	A	200	-40 to 90	4	4	4	4	—	5	25●	—	5	90	35▲
	40762	1.6	25●	A	400	-40 to 90	4	4	4	4	—	5	25●	—	5	90	35▲
	40534	1.9	25●	A	100	-40 to 90	10	10	10	10	—	5	25●	—	10	100	35▲
	40535	1.9	25●	A	200	-40 to 90	10	10	10	10	—	5	25●	—	10	100	35▲
	40536	1.9	25●	A	400	-40 to 90	10	10	10	10	—	5	25●	—	10	100	35▲
400-Hz Types	40769	0.5	90	B	200	-50 to 100	10	10	10	10	1	4	90	10	100	100	8.5
	40770	0.5	90	B	400	-50 to 100	10	10	10	10	1	4	90	10	100	100	8.5
	40771	0.5	90	B	200	-50 to 100	25	25	40	40	1	4	90	10	100	100	8.5
	40772	0.5	90	B	400	-50 to 100	25	25	40	40	1	4	90	10	100	100	8.5

● Ambient temperature (T_A)▲ Junction-to-ambient (Θ_{J-A})Modified TO-5
on heat-radiator

Modified TO-5

40430 SERIES (Triacs)

Surge Current (I_{TSM}) = 100 A, Power Control to 1.44 kW

	RCA TYPE	Current		Package (See Below)	Voltage V _{DROM} V	Temp. Range Operating °C	Max. Gate Trigger Current I _{GT} -mA● Modes				Critical Rate-of-Rise of:			Off-State Voltage			Thermal Resistance (Θ)-c °C/W
		I _T (RMS) A	Temp., T _c °C								Commutation Voltage dv/dt - V/μs			dv/dt - V/μs			
							1 ⁺	111 ⁻	1 ⁻	111 ⁺	Min.	Typ.	T _c -°C	Min.	Typ.	T _c -°C	
50/60-Hz Types	40429	6	75	C	200	−65 to 100	25	25	40	40	3	10	75	30	150	100	4
	40430	6	75	C	400	−65 to 100	25	25	40	40	3	10	75	20	100	100	4
	40946	6	75	C	600	−65 to 100	25	25	40	40	3	10	75	10	75	100	4
	40502	3.3	25●	D	200	−65 to 100	25	25	40	40	4	12	25●	30	150	100	24▲
	40503	3.3	25●	D	400	−65 to 100	25	25	40	40	4	12	25●	20	100	100	24▲
	40947	3.3	25●	D	600	−65 to 100	25	25	40	40	4	12	25●	10	75	100	24▲
Zero- Voltage- Switch Types	40727	6	75	C	200	−65 to 100	45	—	—	45	3	—	75	30	—	100	4
	40728	6	75	C	400	−65 to 100	45	—	—	45	3	—	75	20	—	100	4
	40729	3.3	25●	D	200	−65 to 100	45	—	—	45	3	—	25●	30	—	100	4
	40730	3.3	25●	D	400	−65 to 100	45	—	—	45	3	—	25●	20	—	100	4

40432 SERIES (Triacs with integral trigger)

Surge Current (I_{TSM}) = 100 A, Power Control to 1.44 kW

50/60-Hz Types	40431	6	75	B	200	-40 to 100	—	—	—	—	2	10	75	20	100	100	4
	40432	6	75	B	400	-40 to 100	—	—	—	—	2	10	75	20	75	100	4
	40511	2.2	25●	A	200	-40 to 100	—	—	—	—	—	6	25●	20	100	100	35▲
	40512	2.2	25●	A	400	-40 to 100	—	—	—	—	—	6	25●	20	75	100	35▲

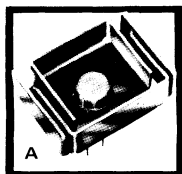
40486 SERIES (Triacs)

Surge Current (I_{TSM}) = 100 A, Power Control to 1.44 kW

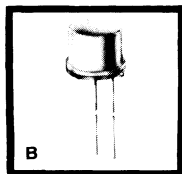
50/60-Hz Types	40485	6	75	B	200	-65 to 100	25	25	40	40	3	10	75	30	150	100	4
	40486	6	75	B	400	-65 to 100	25	25	40	40	3	10	75	20	100	100	4
	40948	6	75	B	600	-65 to 100	25	25	40	40	3	10	75	10	75	100	4
	40638	6	60	E	200	-65 to 100	25	25	40	40	3	10	60	30	150	100	7♦
	40639	6	60	E	400	-65 to 100	25	25	40	40	3	10	60	20	100	100	7♦
	40950	6	58	E	600	-65 to 100	25	25	40	40	3	10	25●	10	75	100	7♦
	40664	6	75	B	450	-65 to 100	50	50	—	—	3	10	75	10	100	100	4
	40667	6	75	E	450	-65 to 100	50	50	—	—	3	10	75	10	100	100	5.5♦
	40509	2.2	25●	A	200	-65 to 100	25	25	40	40	4	12	25●	30	150	100	35▲
	40510	2.2	25●	A	400	-65 to 100	25	25	40	40	4	12	25●	20	100	100	35▲
Zero-Voltage-Switch Types	40949	2.2	25●	A	600	-65 to 100	25	25	40	40	3	10	25●	10	75	100	35▲
	40723	6	75	B	450	-40 to 100	45	—	—	45	3	—	75	10	—	100	4
	40724	6	75	A	450	-40 to 100	45	—	—	45	3	—	75	10	—	100	4
	40725	6	75	B	200	-40 to 100	45	—	—	45	3	—	75	30	—	100	4
	40726	6	75	B	400	-40 to 100	45	—	—	45	3	—	75	20	—	100	4
	40733	4.2	75—	E	200	-40 to 100	45	—	—	45	3	—	75	30	—	100	4
	40734	4.2	75—	E	400	-40 to 100	45	—	—	45	3	—	75	20	—	100	4
	40731	2.3	75●	A	200	-40 to 100	45	—	—	45	4	—	75	30	—	100	4
400-Hz Types	40732	2.3	75●	A	400	-40 to 100	45	—	—	45	4	—	75	20	—	100	4
	40773	2.5	90	B	200	-50 to 100	25	25	40	40	3	10	90	30	150	100	4
	40774	2.5	90	B	400	-50 to 100	25	25	40	40	3	10	90	30	150	100	4

● Ambient temperature (T_A) ▲ Junction-to-ambient (Θ_{JA}) ♦ Junction-to-heat spreader (Θ_{J-HS})

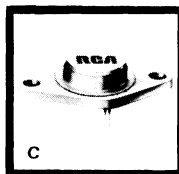
● Forced air cooling — Heat Sink T[°]



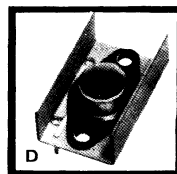
Modified TO-5
on heat-radiator



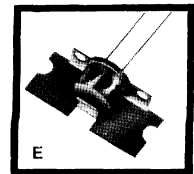
Modified TO-5



TO-66



TO-66 on heat-radiator



Modified TO-5
on heat-spreader

40669 SERIES (VERSAWATT Package)**Surge Current (I_{TSM}) = 100 A, Power Control to 1.9 kW**

	RCA TYPE	Current		Package (See Below)	Voltage V_{DROM} V	Temp. Range Operating $^{\circ}\text{C}$	Max. Gate Trigger Current I_{GT} -mA● Modes				Critical Rate-of-Rise of: Commutation Voltage $dv/dt - \text{V}/\mu\text{s}$			Off-State Voltage $dv/dt - \text{V}/\mu\text{s}$			Thermal Resistance $(\theta)_{j-c}$ $^{\circ}\text{C}/\text{W}$
		I_T (RMS) A	Temp., T_c $^{\circ}\text{C}$				1^+	111^-	1^-	111^+	Min.	Typ.	T_c - $^{\circ}\text{C}$	Min.	Typ.	T_c - $^{\circ}\text{C}$	
50/60-Hz Types	40668	8	80	F	200	-65 to 100	25	25	60	60	4	10	80	100	300	100	2.2
	40669	8	80	F	400	-65 to 100	25	25	60	60	4	10	80	75	250	100	2.2
	40842	6	80	F	450	-40 to 100	80	80	—	—	2	10	80	100	300	100	2.2
Zero-Voltage-Switch Types	40721	8	80	F	200	-40 to 100	45	—	—	45	4	—	80	100	—	100	2.2
	40722	8	80	F	400	-40 to 100	45	—	—	45	4	—	80	75	—	100	2.2

40900 SERIES (ISOWATT Package-Isolated Tab)**Surge Current (I_{TSM}) = 100 A, Power Control to 1.9 kW**

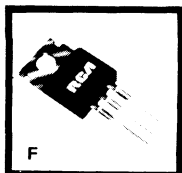
50/60-Hz Types	40900	8	75	F-1	100	-65 to 100	25	25	60	60	4	10	75	125	350	100	3.1
	40901	8	75	F-1	200	-65 to 100	25	25	60	60	4	10	75	100	300	100	3.1
	40902	8	75	F-1	400	-65 to 100	25	25	60	60	4	10	75	75	250	100	3.1

2N5568 SERIES (Triacs)**Surge Current (I_{TSM}) = 100 A, Power Control to 2.4 kW**

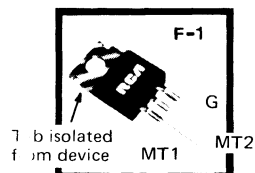
50/60-Hz Types	2N5567	10	85	G	200	-65 to 100	25	25	40	40	2	5	85	30	150	100	1
	2N5568	10	85	G	400	-65 to 100	25	25	40	40	2	5	85	20	100	100	1
	40795	10	85	G	600	-65 to 100	25	25	40	40	2	5	85	10	75	100	1
Zero-Voltage-Switch Types	40717	10	85	G	200	-40 to 100	45	—	—	45	2	—	85	30	—	100	1
	40718	10	85	G	400	-40 to 100	45	—	—	45	2	—	85	20	—	100	1
400-Hz Types	40779	10	85	G	200	-50 to 100	50	50	80	80	5	10	85	30	150	100	1
	40780	10	85	G	400	-50 to 100	50	50	80	80	5	10	85	30	150	100	1
	40775	6	90	G	200	-50 to 100	50	50	80	80	5	10	90	30	150	100	1
	40776	6	90	G	400	-50 to 100	50	50	80	80	5	10	90	30	150	100	1

2N5570 SERIES (Triacs)**Surge Current (I_{TSM}) = 100 A, Power Control to 2.4 kW**

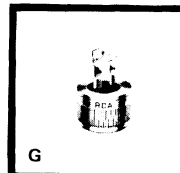
50/60-Hz Types	2N5569	10	85	H	200	-65 to 100	25	25	40	40	2	5	85	30	150	100	1
	2N5570	10	85	H	400	-65 to 100	25	25	40	40	2	5	85	20	100	100	1
	40796	10	85	H	600	-65 to 100	25	25	40	40	2	5	85	10	75	100	1
	40799	10	85	J	200	-65 to 100	25	25	40	40	2	5	85	30	150	100	1.1
	40800	10	85	J	400	-65 to 100	25	25	40	40	2	5	85	20	100	100	1.1
	40801	10	85	J	600	-65 to 100	25	25	40	40	2	5	85	10	75	100	1.1
Zero-Voltage-Switch Types	40719	10	85	H	200	-40 to 100	45	—	—	45	2	—	85	30	—	100	1
	40720	10	85	H	400	-40 to 100	45	—	—	45	2	—	85	20	—	100	1
400-Hz Types	40781	10	85	H	200	-50 to 100	50	50	80	80	5	10	85	30	150	100	1
	40782	10	85	H	400	-50 to 100	50	50	80	80	5	10	85	30	150	100	1
	40777	6	90	H	200	-50 to 100	50	50	80	80	5	10	90	30	150	100	1
	40778	6	90	H	400	-50 to 100	50	50	80	80	5	10	90	30	150	100	1

● Ambient temperature (T_A)

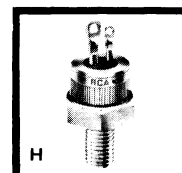
TO-220AB



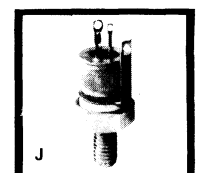
TO-220AB



Press-Fit



Stud



Isolated Stud

2N5572 SERIES (Triacs)

Surge Current (I_{TSM}) = 100 A, Power Control to 3.6 kW

	RCA TYPE	Current		Package (See Below)	Voltage V _{DROM} V	Temp. Range Operating °C	Max. Gate Trigger Current I _{GT} -mA● Modes				Critical Rate-of-Rise of: Commutation Voltage dv/dt - V/μs			Off-State Voltage dv/dt - V/μs			Thermal Resistance Θ _{J-C} °C/W
		I _T (RMS) A	Temp., T _c °C				1 ⁺	111 ⁻	1 ⁻	111 ⁺	Min.	Typ.	T _c -°C	Min.	Typ.	T _c -°C	
50/60-Hz Types	2N5571	15	80	G	200	-65 to 100	50	50	80	80	2	10	80	30	150	100	1
	2N5572	15	80	G	400	-65 to 100	50	50	80	80	2	10	80	20	100	100	1
	40797	15	80	G	600	-65 to 100	50	50	80	80	2	10	80	10	75	100	1
Zero- Voltage- Switch Types	40711	15	80	G	200	-40 to 100	45	—	—	45	2	—	80	10	—	100	1
	40712	15	80	G	400	-40 to 100	45	—	—	45	2	—	80	10	—	100	1
400-Hz Types	40783	15	80	G	200	-50 to 100	50	50	80	80	5	10	80	30	150	100	1
	40784	15	80	G	400	-50 to 100	50	50	80	80	5	10	80	20	100	100	1

2N5574 SERIES (Triacs)

Surge Current (I_{TSM}) = 100 A, Power Control to 3.6 kW

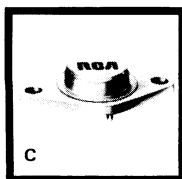
50/60-Hz Types	2N5573	15	80	H	200	-65 to 100	50	50	80	80	2	10	80	30	150	100	1
	2N5574	15	80	H	400	-65 to 100	50	50	80	80	2	10	80	20	100	100	1
	40798	15	80	H	600	-65 to 100	50	50	80	80	2	10	80	10	75	100	1
	40802	15	75	J	200	-65 to 100	50	50	80	80	2	10	75	30	150	100	1.1
	40803	15	75	J	400	-65 to 100	50	50	80	80	2	10	75	20	100	100	1.1
	40804	15	75	J	600	-65 to 100	50	50	80	80	2	10	75	10	75	100	1.1
Zero-Voltage-Switch Types	40713	15	80	H	200	-40 to 100	45	—	—	45	2	—	80	30	—	100	1
	40714	15	80	H	400	-40 to 100	45	—	—	45	2	—	80	20	—	100	1
400-Hz Types	40785	15	80	H	200	-50 to 100	50	50	80	80	5	10	80	30	150	100	1
	40786	15	80	H	400	-50 to 100	50	50	80	80	5	10	80	20	100	100	1

40576 SERIES (Triacs)

Surge Current (I_{TSM}) = 100 A, Power Control to 3.6 kW

50/60-Hz Types	40575	15	70	C	200	-40 to 100	30	30	80	80	—	10	70	—	40	100	1.3
	40576	15	70	C	400	-40 to 100	30	30	80	80	—	10	70	—	40	100	1.3
Zero-Voltage-Switch Types	40715	15	70	C	200	-40 to 100	45	—	—	45	—	10	70	—	40	100	1.3
	40716	15	70	C	400	-40 to 100	45	—	—	45	—	10	70	—	40	100	1.3

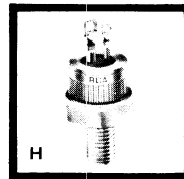
● Ambient temperature (T_A)



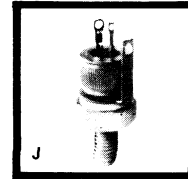
TO-66



Press-Fit



Stud



Isolated Stud

40671 SERIES (Triacs)

Surge Current (I_{TSM}) = 300 A, Power Control to 7.2 kW

	RCA TYPE	Current		Package (See Below)	Voltage V _{DROM} V	Temp. Range Operating °C	Max. Gate Trigger Current I _{GT} -mA● Modes				Critical Rate-of-Rise of:						Thermal Resistance (θ) _{J-C} °C/W
		I _T (RMS) A	Temp., T _C °C								Commutation Voltage dv/dt - V/μs			Off-State Voltage dv/dt - V/μs			
							1 ⁺	111 ⁻	1 ⁻	111 ⁺	Min.	Typ.	T _C -°C	Min.	Typ.	T _C -°C	
50/60-Hz Types	40660	30	65	G-1	200	-65 to 100	50	50	80	80	3	20	65	40	200	100	0.8
	40661	30	65	G-1	400	-65 to 100	50	50	80	80	3	20	65	25	150	100	0.8
	40671	30	65	G-1	600	-65 to 100	50	50	80	80	3	20	65	20	100	100	0.8
Zero - Voltage- Switch Types	40705	30	65	G-1	200	-40 to 100	45	-	-	45	3	-	65	40	-	100	0.8
	40706	30	65	G-1	400	-40 to 100	45	-	-	45	3	-	65	25	-	100	0.8
	40709	30	65	G-1	600	-40 to 100	45	-	-	45	3	-	65	20	-	100	0.8
400-Hz Types	40787	25	85	G-1	200	-50 to 100	80	80	120	120	2	-	85	30	150	100	0.8
	40788	25	85	G-1	400	-50 to 100	80	80	120	120	2	-	85	30	150	100	0.8

40672 SERIES (Triacs)

Surge Current (I_{TSM}) = 300 A, Power Control to 7.2 kW

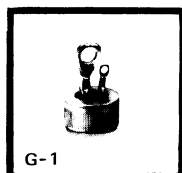
50/60-Hz Types	40662	30	60	H-1	200	-65 to 100	50	50	80	80	3	20	60	40	200	100	0.9
	40663	30	60	H-1	400	-65 to 100	50	50	80	80	3	20	60	25	150	100	0.9
	40672	30	60	H-1	600	-65 to 100	50	50	80	80	3	20	60	20	100	100	0.9
	40805	30	55	J-1	200	-65 to 100	50	50	80	80	3	20	55	40	200	100	1
	40806	30	55	J-1	400	-65 to 100	50	50	80	80	3	20	55	25	150	100	1
	40807	30	55	J-1	600	-65 to 100	50	50	80	80	3	20	55	20	100	100	1
Zero-Voltage-Switch Types	40707	30	60	H-1	200	-40 to 100	45	—	—	45	3	—	60	40	—	100	0.9
	40708	30	60	H-1	400	-40 to 100	45	—	—	45	3	—	60	25	—	100	0.9
	40710	30	60	H-1	600	-40 to 100	45	—	—	45	3	—	60	20	—	100	0.9
400-Hz Types	40789	25	80	H-1	200	-50 to 100	80	80	120	120	2	—	80	30	150	100	0.9
	40790	25	80	H-1	400	-50 to 100	80	80	120	120	2	—	80	30	150	100	0.9

2N5443 SERIES (Triacs)

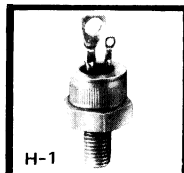
Surge Current (I_{TSM}) = 300 A, Power Control to 9.6 kW

50/60-Hz Types	2N5441	40	70	G-1	200	-65 to 110	50	50	80	80	5	30	70	50	200	110	0.8
	2N5442	40	70	G-1	400	-65 to 110	50	50	80	80	5	30	70	30	150	110	0.8
	2N5443	40	70	G-1	600	-65 to 110	50	50	80	80	5	30	70	20	100	110	0.8
Zero-Voltage-Switch Types	40699	40	70	G-1	200	-40 to 110	45	—	—	45	5	—	70	50	—	110	0.8
	40700	40	70	G-1	400	-40 to 110	45	—	—	45	5	—	70	30	—	110	0.8
	40701	40	70	G-1	600	-40 to 110	45	—	—	45	5	—	70	20	—	110	0.8
400-Hz Types	40791	40	70	G-1	200	-50 to 110	80	80	120	120	2	—	70	50	200	110	0.8
	40792	40	70	G-1	400	-50 to 110	80	80	120	120	2	—	70	50	200	110	0.8

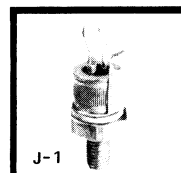
● Ambient temperature (T_A)



Press-Fit



Stud



Isolated-Stud

2N5446 SERIES (Triacs)
Surge Current (I_{TSM}) = 300 A, Power Control to 9.6 kW

	RCA TYPE	Current		Package (See Below)	Voltage V _{DROM} V	Temp. Range Operating °C	Max. Gate Trigger Current I _{GT} -mA● Modes				Critical Rate-of-Rise of: Commutation Voltage dv/dt - V/μs			Off-State Voltage dv/dt - V/μs			Thermal Resistance (θ_{j-c}) °C/W
		I _T (RMS) A	Temp., T _c °C				1 ⁺	111 ⁻	1 ⁻	111 ⁺	Min.	Typ.	T _c -°C	Min.	Typ.	T _c -°C	
50/60-Hz Types	2N5444	40	65	H-1	200	-65 to 110	50	50	80	80	5	30	65	50	200	110	0.9
	2N5445	40	65	H-1	400	-65 to 110	50	50	80	80	5	30	65	30	150	110	0.9
	2N5446	40	65	H-1	600	-65 to 110	50	50	80	80	5	30	65	20	100	110	0.9
	40688	40	60	J-1	200	-65 to 110	50	50	80	80	5	30	60	50	200	110	1
	40689	40	60	J-1	400	-65 to 110	50	50	80	80	5	30	60	30	150	110	1
	40690	40	60	J-1	600	-65 to 110	50	50	80	80	5	30	60	20	100	110	1
Zero- Voltage - Switch Types	40702	40	65	H-1	200	-40 to 110	45	-	-	45	5	-	65	50	-	110	0.9
	40703	40	65	H-1	400	-40 to 110	45	-	-	45	5	-	65	30	-	110	0.9
	40704	40	65	H-1	600	-40 to 110	45	-	-	45	5	-	65	20	-	110	0.9
400-Hz Types	40793	40	65	H-1	200	-50 to 110	80	80	120	120	2	-	65	50	200	110	0.9
	40794	40	65	H-1	400	-50 to 110	80	80	120	120	2	-	65	50	200	110	0.9

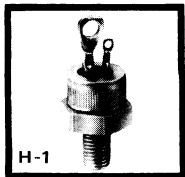
40916 SERIES (Triacs)
Surge Current (I_{TSM}) = 850 A, Power Control to 19.2 kW

50/60-Hz Types	40916	80	75	K	200	-40 to 110	75	75	150	150	3	10	75	50	200	110	0.3
	40917	80	75	K	400	-40 to 110	75	75	150	150	3	10	75	30	150	110	0.3
	40918	80	75	K	600	-40 to 110	75	75	150	150	3	10	75	20	100	110	0.3

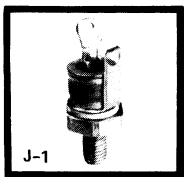
40919 SERIES (Triacs)
Surge Current (I_{TSM}) = 850 A, Power Control to 19.2 kW

50/60-Hz Types	40919	80	65	L	200	-40 to 110	75	75	150	150	3	10	65	50	200	110	0.4
	40920	80	65	L	400	-40 to 110	75	75	150	150	3	10	65	30	150	110	0.4
	40921	80	65	L	600	-40 to 110	75	75	150	150	3	10	65	20	100	110	0.4
	40922	80	55	M	200	-40 to 110	75	75	150	150	3	10	55	50	200	110	0.5
	40923	80	55	M	400	-40 to 110	75	75	150	150	3	10	55	30	150	110	0.5
	40924	80	55	M	600	-40 to 110	75	75	150	150	3	10	55	20	100	110	0.5

● Ambient temperature (TA)



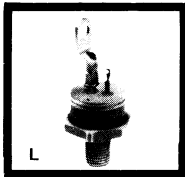
Stud



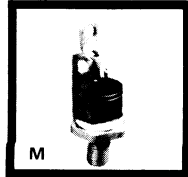
Isolated-Stud



Press-Fit



Stud



Isolated-Stud

2N4102 SERIES (SCRs)**Surge Current (I_{TSM}) = 60 A, Power Control to 0.5 kW**

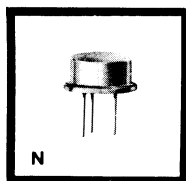
	RCA TYPE	Current		Package (See Below)	Voltage V _{DROM} V _{RROM} V	Temp. Range Operating °C	Gate Trigger Characteristics				Critical Rate-of-Rise of Off-State Voltage dv/dt - V/μs			Instantaneous Holding Current I _{HO} - mA			Thermal Resistance (θ) _{J-C} °C/W
		I _T (RMS) A	Temp., T _c °C				I _{GT} - mA		V _{GT} - V		Min.	Typ.	T _c -°C	Typ.	Max.	T _c -°C	
							Typ.	Max.	Typ.	Max.							
50/60-Hz Types	2N3528	2	25●	N	200	-40 to 100	8	15	1.2	2	10	200	100	10	20	25	40▲
	2N3529	2	25●	N	400	-40 to 100	8	15	1.2	2	10	200	100	10	20	25	40▲
	2N4102	2	25●	N	600	-40 to 100	8	15	1.2	2	10	200	100	10	20	25	40▲

106, 107 SERIES (SCR's - Sensitive gate types - VERSAWATT Package)**Surge Current (I_{TSM}) = 35 A, Power Control to 1 kW**

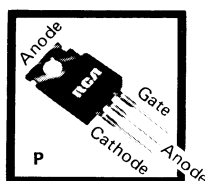
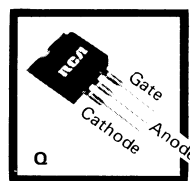
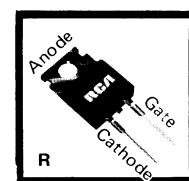
50/ 60-Hz Types	106A(1,2,3)	4	85	P,Q,R	100	-40 to 110	30 ±	200±	0.5	0.8	5	8	110	1.7	3	25	3.5
	106B(1,2,3)	4	85	P,Q,R	200	-40 to 110	30 ±	200±	0.5	0.8	5	8	110	1.7	3	25	3.5
	106C(1,2,3)	4	85	P,Q,R	300	-40 to 110	30 ±	200±	0.5	0.8	5	8	110	1.7	3	25	3.5
	106D(1,2,3)	4	85	P,Q,R	400	-40 to 110	30 ±	200±	0.5	0.8	5	8	110	1.7	3	25	3.5
	106E(1,2,3)	4	85	P,Q,R	500	-40 to 110	30 ±	200±	0.5	0.8	5	8	110	1.7	3	25	3.5
	106F(1,2,3)	4	85	P,Q,R	50	-40 to 110	30 ±	200±	0.5	0.8	5	8	110	1.7	3	25	3.5
	106M(1,2,3)	4	85	P,Q,R	600	-40 to 110	30 ±	200±	0.5	0.8	5	8	110	1.7	3	25	3.5
	106Q(1,2,3)	4	85	P,Q,R	15	-40 to 110	30 ±	200±	0.5	0.8	5	8	110	1.7	3	25	3.5
	106Y(1,2,3)	4	85	P,Q,R	30	-40 to 110	30 ±	200±	0.5	0.8	5	8	110	1.7	3	25	3.5
	107A(1,2,3)	4	85	P,Q,R	100	-40 to 110	325±	500±	0.5	0.8	5	8	110	1.9	3	25	3.5
	107B(1,2,3)	4	85	P,Q,R	200	-40 to 110	325±	500±	0.5	0.8	5	8	110	1.9	3	25	3.5
	107C(1,2,3)	4	85	P,Q,R	300	-40 to 110	325±	500±	0.5	0.8	5	8	110	1.9	3	25	3.5
	107D(1,2,3)	4	85	P,Q,R	400	-40 to 110	325±	500±	0.5	0.8	5	8	110	1.9	3	25	3.5
	107E(1,2,3)	4	85	P,Q,R	500	-40 to 110	325±	500±	0.5	0.8	5	8	110	1.9	3	25	3.5
	107F(1,2,3)	4	85	P,Q,R	50	-40 to 110	325±	500±	0.5	0.8	5	8	110	1.9	3	25	3.5
	107M(1,2,3)	4	85	P,Q,R	600	-40 to 110	325±	500±	0.5	0.8	5	8	110	1.9	3	25	3.5
	107Q(1,2,3)	4	85	P,Q,R	15	-40 to 110	325±	500±	0.5	0.8	5	8	110	1.9	3	25	3.5
	107Y(1,2,3)	4	85	P,Q,R	30	-40 to 110	325±	500±	0.5	0.8	5	8	110	1.9	3	25	3.5

40945 SERIES (SCRs)**Surge Current (I_{TSM}) = 200 A, Power Control to 1.1 kW**

50/60-Hz Types	40942	4.5	75	N	100	-40 to 100	8	15	1.1	2	10	100	100	9	20	25	5
	40943	4.5	75	N	200	-40 to 100	8	15	1.1	2	10	100	100	9	20	25	5
	40944	4.5	75	N	400	-40 to 100	8	15	1.1	2	10	100	100	9	20	25	5
	40945	4.5	75	N	600	-40 to 100	8	15	1.1	2	10	100	100	9	20	25	5

● Ambient temperature (T_A)▲ Junction-to-ambient (Θ_{JA})± μA value

TO-8

TO-220AB
(Suffix No. 1)TO-220AB
(Suffix No. 2)TO-220AB
(Suffix No. 3)

2N4101 SERIES (SCRs)Surge Current (I_{TSM}) = 60 A, Power Control to 1.2 kW

	RCA TYPE	Current		Package (See Below)	Voltage V _{DROM} V _{RROM} V	Temp. Range Operating °C	Gate Trigger Characteristics •				Critical Rate-of-Rise of Off-State Voltage dv/dt - V/μs			Instantaneous Holding Current i _{HO} - mA			Thermal Resistance Θ _{J-C} °C/W
		I _T (RMS) A	Temp., T _c °C				I _{GT} - mA		V _{GT} - V		Min.	Typ.	T _c °C	Typ.	Max.	T _c °C	
							Typ.	Max.	Typ.	Max.							
50/60-Hz Types	2N3228	5	75	C	200	-40 to 100	8	15	1.2	2	10	200	100	10	20	25	4
	2N3525	5	75	C	400	-40 to 100	8	15	1.2	2	10	200	100	10	20	25	4
	2N4101	5	75	C	600	-40 to 100	8	15	1.2	2	10	200	100	10	20	25	4
	40504	1.7	25●	D	200	-40 to 100	8	15	1.2	2	10	200	100	10	20	25	28▲
	40505	1.7	25●	D	400	-40 to 100	8	15	1.2	2	10	200	100	10	20	25	28▲
	40506	1.7	25●	D	600	-40 to 100	8	15	1.2	2	10	200	100	10	20	25	28▲

40555 SERIES (SCRs – Fast-turn-off types)Surge Current (I_{TSM}) = 80 A . . . Turn Off Time (t_q) = 6 μs max.

50/60-Hz Types	40553	5	60	C	200	-40 to 100	15	40	1.8	3.5	100	250	80	20	50	25	4
	40554	5	60	C	400	-40 to 100	15	40	1.8	3.5	100	250	80	20	50	25	4
	40555	5	60	C	600	-40 to 100	15	40	1.8	3.5	100	250	80	20	50	25	4
	40640	5	60	C	600‡	-40 to 100	15	30	1.8	4	—	—	—	—	—	—	4
	40641	5	60	C	600‡	-40 to 100	15	30	1.8	4	—	—	—	—	—	—	4

40768 SERIES (SCRs – Driver for GaAs Laser Diodes)Repetitive Peak On-State Current (I_{PM}) = 75 A

50/60-Hz Types	40768	5	25	C	600	-40 to 100	—	35	—	4	200	—	75	15	—	25	7
----------------	-------	---	----	---	-----	------------	---	----	---	---	-----	---	----	----	---	----	---

TA7884 SERIES (SCRs-Fast-turn-off types for TV deflection circuits)Surge Current (I_{TSM}) = 50 A . . . Turn-Off Time (t_q) = 4 μs max.

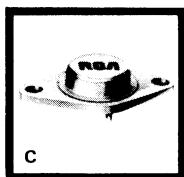
50/60-Hz Types	TA7884	5	60	C	600▲	-40 to 150	15	40	1.8	4	700	—	70	—	—	—	4
	TA7885	5	60	C	550▲	-40 to 150	15	45	1.8	4	700	—	70	—	—	—	4

40888 SERIES (SCRs - Fast-turn-off types for TV deflection circuits)Surge Current (I_{TSM}) = 50 A . . . Turn-Off Time (t_q) = 4.2 μs max.

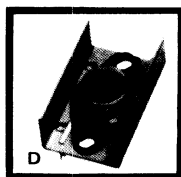
50/60-Hz Types	40888	5	60	C	750 §	-40 to 80	15	40	1.8	4	700	—	70	—	—	—	4
	40889	5	60	C	700 §	-40 to 80	15	45	1.8	4	700	—	70	—	—	—	4

TA8376 SERIES (SCRs – Fast-turn-off types for TV deflection circuits)Surge Current (I_{TSM}) = 50 A . . . Turn-Off Time (t_q) = 5 μs max.

50/60-Hz Types	TA8376	5	60	C	400▲	-30 to 80	15	40	1.8	4	700	—	70	—	—	—	4
	TA8377	5	60	C	650▲	-30 to 80	15	40	1.8	4	700	—	70	—	—	—	4

● Ambient temperature (T_A)▲ Junction-to-ambient (Θ_{J-A})‡ $V_{RROM} = 5 V$ ▲ $V_{RROM} = 25 V$ § $V_{RROM} = 15 V$ 

TO-66



TO-66 on heat-radiator

40655 SERIES (SCRs)

Surge Current (I_{TSM}) = 100 A, Power Control to 1.7 kW

	RCA TYPE	Current		Package (See Below)	Voltage V _{DROM} V _{RROM} V	Temp. Range Operating °C	Gate Trigger Characteristics •				Critical Rate-of-Rise of Off-State Voltage dv/dt - V/μs			Instantaneous Holding Current			Thermal Resistance Θ _{J-C} °C/W
		I _T (RMS) A	Temp., T _c °C				I _{GT} - mA		V _{GT} - V		Min.	Typ.	T _c °C	Typ.	Max.	T _c °C	
							Typ.	Max.	Typ.	Max.							
50/60-Hz Types	40654	7	60	S	200	-65 to 100	6	15	0.65	1.5	20	200	100	9	20	25	5
	40655	7	60	S	400	-65 to 100	6	15	0.65	1.5	20	200	100	9	20	25	5
	40656	7	50 ‡	U	200	-65 to 100	6	15	0.65	1.5	20	200	100	9	20	25	7◆
	40657	7	50 ‡	U	400	-65 to 100	6	15	0.65	1.5	20	200	100	9	20	25	7◆
	40833	7	60	S	600	-65 to 100	6	15	0.65	1.5	20	200	100	9	20	25	5
	40834	7	50 ‡	U	600	-65 to 100	6	15	0.65	1.5	20	200	100	9	20	25	7◆
	40658	3.3	25●	T	200	-65 to 100	6	15	0.65	1.5	20	200	100	9	20	25	35▲
	40659	3.3	25●	T	400	-65 to 100	6	15	0.65	1.5	20	200	100	9	20	25	35▲
	40835	3.3	25●	T	600	-65 to 100	6	15	0.65	1.5	20	200	100	9	20	25	35▲

40869 SERIES (VERSAWATT SCRs)

Surge Current (I_{TSM}) = 100 A, Power Control to 2 kW

50/60-Hz Types	40867	8	80	F	100	-65 to 100	8	15	0.9	1.5	75	300	100	10	20	25	2.2
	40868	8	80	F	200	-65 to 100	8	15	0.9	1.5	50	300	100	10	20	25	2.2
	40869	8	80	F	400	-65 to 100	8	15	0.9	1.5	30	200	100	10	20	25	2.2

40740 SERIES (SCRs)

Surge Current (I_{TSM}) = 100 A, Power Control to 2.5 kW

50/60-Hz Types	40737	10	85	G	100	-65 to 100	6	15	0.9	2	10	200	100	9	20	25	1.5
	40738	10	85	G	200	-65 to 100	6	15	0.9	2	10	200	100	9	20	25	1.5
	40739	10	85	G	400	-65 to 100	6	15	0.9	2	10	150	100	9	20	25	1.5
	40740	10	85	G	600	-65 to 100	6	15	0.9	2	10	75	100	9	20	25	1.5

40744 SERIES (SCRs)

Surge Current (I_{TSM}) = 100 A, Power Control to 2.5 kW

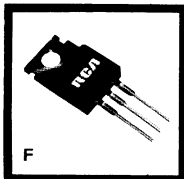
50/60-Hz Types	40741	10	85	H	100	-65 to 100	6	15	0.9	2	10	200	100	9	20	25	1.5
	40742	10	85	H	200	-65 to 100	6	15	0.9	2	10	200	100	9	20	25	1.5
	40743	10	85	H	400	-65 to 100	6	15	0.9	2	10	150	100	9	20	25	1.5
	40744	10	85	H	600	-65 to 100	6	15	0.9	2	10	75	100	9	20	25	1.5
	40745	10	85	J	100	-65 to 100	6	15	0.9	2	10	200	100	9	20	25	1.7
	40746	10	85	J	200	-65 to 100	6	15	0.9	2	10	200	100	9	20	25	1.7
	40747	10	85	J	400	-65 to 100	6	15	0.9	2	10	150	100	9	20	25	1.7
	40748	10	85	J	600	-65 to 100	6	15	0.9	2	10	75	100	9	20	25	1.7

‡ Heat-spreader temperature (T_{HS})

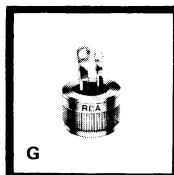
● Ambient temperature (T_A)

▲ Junction-to-ambient (Θ_{J-A})

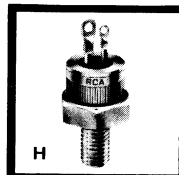
♦ Junction-to-heat spreader (Θ_{J-HS})



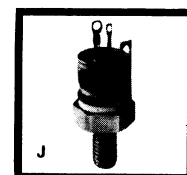
TO-220AB



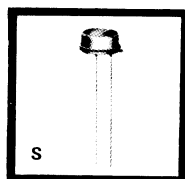
Press-Fit



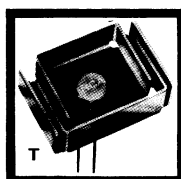
Stud



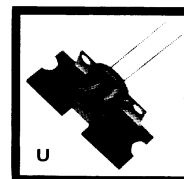
Isolated-Stud



Low-Profile TO-5



Low-Profile TO-5
on heat-radiator



Low-Profile TO-5
on heat-spreader

2N4103 SERIES (SCRs)**Surge Current (I_{TSM}) = 200 A, Power Control to 3 kW**

	RCA TYPE	Current		Package (See Below)	Voltage V _{DROM} V _{RROM} V	Temp. Range Operating °C	Gate Trigger Characteristics				Critical Rate-of-Rise of Off-State Voltage dv/dt - V/μs			Instantaneous Holding Current i _{HO} - mA			Thermal Resistance Θ _{J-C} °C/W	
		I _T (RMS) A	Temp., T _C °C				I _{GT} - mA		V _{GT} - V		I _{Min.}	Typ.	T _C -°C	Typ.	Max.	T _C -°C		
							Typ.	Max.	Typ.	Max.						Typ.		Max.
50/60-Hz Types	2N3668	12.5	80	V	100	-40 to 100	20	40	1.5	2	10	100	100	25	50	25	1.7	
	2N3669	12.5	80	V	200	-40 to 100	20	40	1.5	2	10	100	100	25	50	25	1.7	
	2N3670	12.5	80	V	400	-40 to 100	20	40	1.5	2	10	100	100	25	50	25	1.7	
	2N4103	12.5	80	V	600	-40 to 100	20	40	1.5	2	10	100	100	25	50	25	1.7	

2N1850A SERIES (SCRs)**Surge Current (I_{TSM}) = 125 A, Power Control to 4 kW**

50/60-Hz Types	2N1842A	16	80	W	25	-65 to 125	80	—	3.5	—	—	—	—	8	—	125	2
	2N1843A	16	80	W	50	-65 to 125	80	—	3.5	—	—	—	—	8	—	125	2
	2N1844A	16	80	W	100	-65 to 125	80	—	3.5	—	—	—	—	8	—	125	2
	2N1845A	16	80	W	150	-65 to 125	80	—	3.5	—	—	—	—	8	—	125	2
	2N1846A	16	80	W	200	-65 to 125	80	—	3.5	—	—	—	—	8	—	125	2
	2N1847A	16	80	W	250	-65 to 125	80	—	3.5	—	—	—	—	8	—	125	2
	2N1848A	16	80	W	300	-65 to 125	80	—	3.5	—	—	—	—	8	—	125	2
	2N1849A	16	80	W	400	-65 to 125	80	—	3.5	—	—	—	—	8	—	125	2
	2N1850A	16	80	W	500	-65 to 125	80	—	3.5	—	—	—	—	8	—	125	2

40752 SERIES (SCRs)**Surge Current (I_{TSM}) = 200 A, Power Control to 4.8 kW**

50/60-Hz Types	40749	20	75	G	100	-65 to 100	8	15	1.1	2	10	100	100	9	20	25	1.2
	40750	20	75	G	200	-65 to 100	8	15	1.1	2	10	150	100	9	20	25	1.2
	40751	20	75	G	400	-65 to 100	8	15	1.1	2	10	100	100	9	20	25	1.2
	40752	20	75	G	600	-65 to 100	8	15	1.1	2	10	75	100	9	20	25	1.2

40756 SERIES (SCRs)**Surge Current (I_{TSM}) = 200 A, Power Control to 4.8 kW**

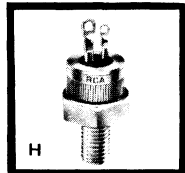
50/60-Hz Types	40753	20	75	H	100	-65 to 100	8	15	1.1	2	10	100	100	9	20	25	1.2
	40754	20	75	H	200	-65 to 100	8	15	1.1	2	10	150	100	9	20	25	1.2
	40755	20	75	H	400	-65 to 100	8	15	1.1	2	10	100	100	9	20	25	1.2
	40756	20	75	H	600	-65 to 100	8	15	1.1	2	10	75	75	9	20	25	1.2
	40757	20	75	J	100	-65 to 100	8	15	1.1	2	10	75	100	9	20	25	1.4
	40758	20	75	J	200	-65 to 100	8	15	1.1	2	10	150	100	9	20	25	1.4
	40759	20	75	J	400	-65 to 100	8	15	1.1	2	10	100	100	9	20	25	1.4
	40760	20	75	J	600	-65 to 100	8	15	1.1	2	10	75	100	9	20	25	1.4

2N690 SERIES (SCRs)**Surge Current (I_{TSM}) = 150 A, Power Control to 6 kW**

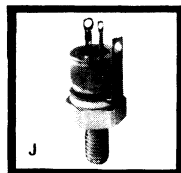
50/60-Hz Types	2N681	25	65	W	25	-65 to 125	50	—	—	3	—	—	—	15	—	125	2
	2N682	25	65	W	50	-65 to 125	50	—	—	3	—	—	—	15	—	125	2
	2N683	25	65	W	100	-65 to 125	50	—	—	3	—	—	—	15	—	125	2
	2N684	25	65	W	150	-65 to 125	50	—	—	3	—	—	—	15	—	125	2
	2N685	25	65	W	200	-65 to 125	50	—	—	3	—	—	—	15	—	125	2
	2N686	25	65	W	250	-65 to 125	50	—	—	3	—	—	—	15	—	125	2
	2N687	25	65	W	300	-65 to 125	50	—	—	3	—	—	—	15	—	125	2
	2N688	25	65	W	400	-65 to 125	50	—	—	3	—	—	—	15	—	125	2
	2N689	25	65	W	500	-65 to 125	50	—	—	3	—	—	—	15	—	125	2
	2N690	25	65	W	600	-65 to 125	50	—	—	3	—	—	—	15	—	125	2

• Ambient temperature (T_A)

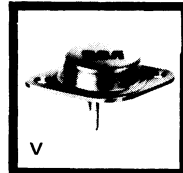
Press-Fit



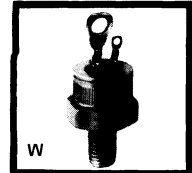
Stud



Isolated-Stud



TO-3



TO-48

2N3653 SERIES (SCRs – Fast-turn-off types)Surge Current (I_{TSM}) = 180 A . . . Turn-Off Time (t_q) = 15 μ s max.

	RCA TYPE	Current		Package (See Below)	Voltage V_{DROM} V_{RROM} V	Temp. Range Operating $^{\circ}$ C	Gate Trigger Characteristics				Critical Rate-of-Rise of Off-State Voltage dv/dt - V/ μ s			Instantaneous Holding Current i_{HO} - mA			Thermal Resistance Θ_{J-c} $^{\circ}$ C/W
		I_T (RMS) A	Temp., T_c $^{\circ}$ C				I_{GT} - mA		V_{GT} - V		Min.	Typ.	T_c $^{\circ}$ C	Typ.	Max.	T_c $^{\circ}$ C	
50/60-Hz Types	2N3650	35	25	W	100	-65 to 120	80	180	1.5	3	200	—	120	75	150	25	1.7
	2N3651	35	25	W	200	-65 to 120	80	180	1.5	3	200	—	120	75	150	25	1.7
	2N3652	35	25	W	300	-65 to 120	80	180	1.5	3	200	—	120	75	150	25	1.7
	2N3653	35	25	W	400	-65 to 120	80	180	1.5	3	200	—	120	75	150	25	1.7
	40735	35	25	W	600	-65 to 120	80	180	1.5	3	200	—	120	75	150	25	1.7

2N3873 SERIES (SCRs)Surge Current (I_{TSM}) = 350 A, Power Control to 8.4 kW

50/60-Hz Types	2N3870	35	65	G	100	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9
	2N3871	35	65	G	200	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9
	2N3872	35	65	G	400	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9
	2N3873	35	65	G	600	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9
	40937	35	65	G	800	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9

2N3899 SERIES (SCRs)Surge Current (I_{TSM}) = 350 A, Power Control to 8.4 kW

50/60-Hz Types	2N3896	35	65	H	100	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9
	2N3897	35	65	H	200	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9
	2N3898	35	65	H	400	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9
	2N3899	35	65	H	600	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9
	40680	35	60	J	100	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	1
	40681	35	60	J	200	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	1
	40682	35	60	J	400	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	1
	40683	35	60	J	600	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	1
	40938	35	65	H	800	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	0.9
	40952	35	60	J	800	-40 to 100	25	40	1.1	2	10	100	100	20	70	25	1

40216 SERIES (SCRs – High-Current Switching Type)Surge Current (I_{TSM}) = 150 A . . . Turn-Off Time (t_q) = 40 μ s max.

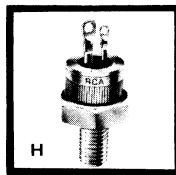
50/60-Hz Types	40216	35 [♣]	65	W	600	-65 to 125	25	80	1.1	2	20	50	125	20	70	25	2
----------------	-------	-----------------	----	---	-----	------------	----	----	-----	---	----	----	-----	----	----	----	---

TA7395 SERIES (SCRs – Fast-turn-off types)Surge Current (I_{TSM}) = 250 A . . . Turn-Off Time (t_q) = 15 μ s max.

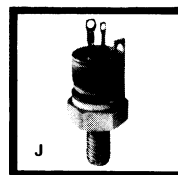
50/60-Hz Types	TA7393	40	65	W	200	-40 to 125	25	80	1.2	3	200	400	125	40	150	25	0.9
	TA7394	40	65	W	400	-40 to 125	25	80	1.2	3	200	400	125	40	150	25	0.9
	TA7395	40	65	W	600	-40 to 125	25	80	1.2	3	200	400	125	40	150	25	0.9

[♣] Peak pulse current = 900 A.

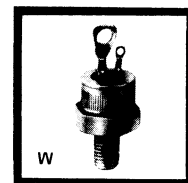
Press-Fit



Stud



Isolated-Stud



TO-48

1N3756 SERIES (Rectifiers)

RCA TYPE	Av. I_O A	Forward Current			Package (See Below)	Voltage V_{RRM} V	Temp. Range Operating $^{\circ}C$	Voltage Drop		Rev. Recovery Time		
		I_F (RMS) A	Surge I_{FSM} A	Temp. T_A $^{\circ}C$				v_F V	I_O A	t_{rr} μs	I_{FM} A	T_A $^{\circ}C$
1N3754	0.125	—	30	65	X	100	-65 to 100	1	0.125	—	—	—
1N3755	0.125	—	30	65	X	200	-65 to 100	1	0.125	—	—	—
1N3756	0.125	—	30	65	X	400	-65 to 100	1	0.125	—	—	—

1N445B SERIES (Rectifiers)

1N440B	0.75	—	15	50	Y	100	-65 to 165	1.5	■	—	—	—
1N441B	0.75	—	15	50	Y	200	-65 to 165	1.5	■	—	—	—
1N442B	0.75	—	15	50	Y	300	-65 to 165	1.5	■	—	—	—
1N443B	0.75	—	15	50	Y	400	-65 to 165	1.5	■	—	—	—
1N444B	0.75	—	15	50	Y	500	-65 to 150	1.5	■	—	—	—
1N445B	0.75	—	15	50	Y	600	-65 to 150	1.5	■	—	—	—

1N547 SERIES (Rectifiers)

1N536	0.75	—	15	50	Y	50	-65 to 165	1.1	0.5	—	—	—
1N537	0.75	—	15	50	Y	100	-65 to 165	1.1	0.5	—	—	—
1N538	0.75	—	15	50	Y	200	-65 to 165	1.1	0.5	—	—	—
1N539	0.75	—	15	50	Y	300	-65 to 165	1.1	0.5	—	—	—
1N540	0.75	—	15	50	Y	400	-65 to 165	1.1	0.5	—	—	—
1N1095	0.75	—	15	50	Y	500	-65 to 165	1.2	0.5	—	—	—
1N547	0.75	—	15	50	Y	600	-65 to 165	1.2	0.5	—	—	—

1N3196 SERIES (Rectifiers) — Uninsulated Package Types

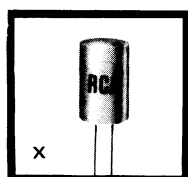
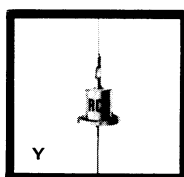
1N3193	0.75	—	—	75	Z	200	-65 to 100	1.2	0.5	—	—	—
1N3194	0.75	—	—	75	Z	400	-65 to 100	1.2	0.5	—	—	—
1N3195	0.75	—	—	75	Z	600	-65 to 100	1.2	0.5	—	—	—
1N3196	0.5	—	—	75	Z	800	-65 to 100	1.2	0.5	—	—	—

1N3563 SERIES (Rectifiers) — Insulated Package Types

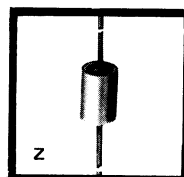
1N3253	0.75	—	—	75	Z	200	-65 to 100	1.2	0.5	—	—	—
1N3254	0.75	—	—	75	Z	400	-65 to 100	1.2	0.5	—	—	—
1N3255	0.75	—	—	75	Z	600	-65 to 100	1.2	0.5	—	—	—
1N3256	0.5	—	—	75	Z	800	-65 to 100	1.2	0.5	—	—	—
1N3563	0.4	—	—	75	Z	1000	-65 to 100	1.2	0.5	—	—	—

1N1764A SERIES (Rectifiers)

1N1763A	1	—	35	75	Y	400	-65 to 135	1.2	1	—	—	—
1N1764A	1	—	35	75	Y	500	-65 to 135	1.2	1	—	—	—

Modified
TO-1 (2-lead)

DO-1



DO-26

1N2864A SERIES (Rectifiers)

RCA TYPE	Av. I_O A	Forward Current			Package (See Below)	Voltage V_{RRM} V	Temp. Range Operating $^{\circ}C$	Voltage Drop		Rev. Recovery Time		
		RMS $I_F(RMS)$ A	Surge I_{FSM} A	Temp.- T_A $^{\circ}C$				V_F V	I_O A	t_{rr} μs	I_{FM} A	T_A $^{\circ}C$
1N2858A	1	—	35	75	Y	50	-65 to 135	1.2	1	—	—	—
1N2859A	1	—	35	75	Y	100	-65 to 135	1.2	1	—	—	—
1N2860A	1	—	35	75	Y	200	-65 to 135	1.2	1	—	—	—
1N2861A	1	—	35	75	Y	300	-65 to 135	1.2	1	—	—	—
1N2862A	1	—	35	75	Y	400	-65 to 135	1.2	1	—	—	—
1N2863A	1	—	35	75	Y	500	-65 to 135	1.2	1	—	—	—
1N2864A	1	—	35	75	Y	600	-65 to 135	1.2	1	—	—	—

1N5214 SERIES (Rectifiers)—Uninsulated-Package Types

1N5211	1	—	—	75	Z	200	-65 to 175	1.2	1	—	—	—
1N5212	1	—	—	75	Z	400	-65 to 175	1.2	1	—	—	—
1N5213	1	—	—	75	Z	600	-65 to 175	1.2	1	—	—	—
1N5214	0.75	—	—	75	Z	800	-65 to 175	1.2	1	—	—	—

1N5218 SERIES (Rectifiers)—Insulated-Package Types

1N5215	1	—	—	75	Z	200	-65 to 175	1.2	1	—	—	—
1N5216	1	—	—	75	Z	400	-65 to 175	1.2	1	—	—	—
1N5217	1	—	—	75	Z	600	-65 to 175	1.2	1	—	—	—
1N5218	0.75	—	—	75	Z	800	-65 to 175	1.2	1	—	—	—

40644 SERIES (Rectifiers)—For Horizontal-Deflection Circuits

40642	1	1.9	70	45	Z	550	-40 to 150	1.3	4	1.1	0.02	25♦
40643	1	1.6	10	45	Z	450	-40 to 150	1.3	4	1.1	0.02	25♦
40644	1	0.2	20	45	Z	550	-40 to 150	2	4	1.6	0.02	25♦

44007 SERIES (Rectifiers)—Moulded Plastic

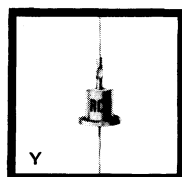
44001	1	—	30	75	AA	50	-65 to 175	1.1	1	1.5‡	30	25
44002	1	—	30	75	AA	100	-65 to 175	1.1	1	1.5‡	30	25
44003	1	—	30	75	AA	200	-65 to 175	1.1	1	1.5‡	30	25
44004	1	—	30	75	AA	400	-65 to 175	1.1	1	1.5‡	30	25
44005	1	—	30	75	AA	600	-65 to 175	1.1	1	1.5‡	30	25
44006	1	—	30	75	AA	800	-65 to 175	1.1	1	1.5‡	30	25
44007	1	—	30	75	AA	1000	-65 to 175	1.1	1	1.5‡	30	25

TA7895 SERIES (Rectifiers)—Fast-Recovery Types

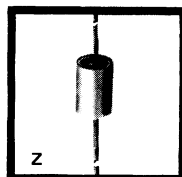
TA7892	1	—	35	100	Z	200	-40 to 165	1.9	4	0.5	20	25
TA7893	1	—	35	100	Z	400	-40 to 165	1.9	4	0.5	20	25
TA7894	1	—	35	100	Z	600	-40 to 165	1.9	4	0.5	20	25
TA7895	1	—	35	100	Z	800	-40 to 165	1.9	4	0.5	20	25

♦ I_{FM} value‡ T_C value

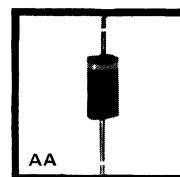
‡ Typical value



DO-1



DO-26



1N5399 SERIES (Rectifiers)—Plastic-Package Types

RCA TYPE	Forward Current				Package (See Below)	Voltage V_{RRM} V	Temp. Range Operating $^{\circ}\text{C}$	Voltage Drop		Rev. Recovery Time		
	Av. I_o A	RMS $I_F(\text{RMS})$ A	Surge I_{FSM} A	Temp. T_A $^{\circ}\text{C}$				v_F V	I_o A	t_{rr} μs	I_{FM} A	T_A $^{\circ}\text{C}$
1N5391	1.5	—	50	70	BB	50	-65 to 170	1.4	1.5	1.5 ‡	30	25
1N5392	1.5	—	50	70	BB	100	-65 to 170	1.4	1.5	1.5 ‡	30	25
1N5393	1.5	—	50	70	BB	200	-65 to 170	1.4	1.5	1.5 ‡	30	25
1N5394	1.5	—	50	70	BB	300	-65 to 170	1.4	1.5	1.5 ‡	30	25
1N5395	1.5	—	50	70	BB	400	-65 to 170	1.4	1.5	1.5 ‡	30	25
1N5396	1.5	—	50	70	BB	500	-65 to 170	1.4	1.5	1.5 ‡	30	25
1N5397	1.5	—	50	70	BB	600	-65 to 170	1.4	1.5	1.5 ‡	30	25
1N5398	1.5	—	50	70	BB	800	-65 to 170	1.4	1.5	1.5 ‡	30	25
1N5399	1.5	—	50	70	BB	1000	-65 to 170	1.4	1.5	1.5 ‡	30	25

TA8163 SERIES (Rectifiers)—For Horizontal-Deflection Circuits

TA8163	—	1.8	50	100◆	BB	150	-30 to 100	1.6	4	0.5	3.14	25◆
--------	---	-----	----	------	----	-----	------------	-----	---	-----	------	-----

TA8003 SERIES (Rectifiers) — For Horizontal-Deflection Circuits

TA7886	—	3	70	45	Y	600	-40 to 150	1.3	4	1.1	0.02	25◆
TA7887	—	3	70	45	Y	600	-40 to 150	1.3	4	1.1	0.02	25◆
TA8003	—	1	30	45	Y	600	-40 to 150	1.3	4	1.5	0.02	25◆

TA8379 SERIES (Rectifiers)—For Horizontal-Deflection Circuits

TA8378	—	1	70	80	BB	400	-30 to 100	1.5	4	0.3	3.14	25◆
TA8379	—	1	70	80	BB	650	-30 to 100	1.5	4	0.3	3.14	25◆

TA40892 SERIES (Rectifiers)—For Horizontal-Deflection Circuits

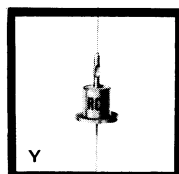
40890	—	3	70	45	Y	750	-30 to 80	1.4	4	0.5	3.14	25◆
40891	—	3	70	45	Y	700	-30 to 80	1.4	4	0.5	3.14	25◆
40892	—	1	30	45	Y	700	-30 to 80	1.5	4	0.7	3.14	25◆

40267 SERIES (Rectifiers)

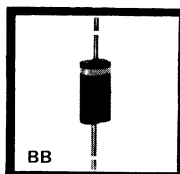
40266	2	—	35	105◆	Y	100	-65 to 135	3	15	—	—	—
40267	2	—	35	105◆	Y	200	-65 to 135	3	15	—	—	—

TA7901 SERIES (Rectifiers)—Fast-Recovery Types

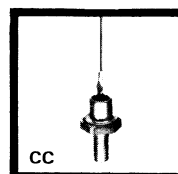
TA7898	3	4.5	75	100◆	CC	200	-40 to 165	1.9	4	0.5	40	25
TA7899	3	4.5	75	100◆	CC	400	-40 to 165	1.9	4	0.5	40	25
TA7900	3	4.5	75	100◆	CC	600	-40 to 165	1.9	4	0.5	40	25
TA7901	3	4.5	75	100◆	CC	800	-40 to 165	1.9	4	0.5	40	25

◆ T_C value ‡ Typical value

DO-1



JEDEC DO-15



CC

45411/45412 SERIES (Diacs) For Triggering Triacs—Plastic Package
50/60/400 Hz Bidirectional triggering diode

RCA TYPE	Peak Pulse Current (Forward or Reverse) Max. $A_{T_C} \leq 900^\circ$	Temp. Range Operating $^\circ\text{C}$	Package (See Below)	Breakover Voltage (Forward or Reverse) V	Breakover Voltage Symmetry V	Dynamic Breakback Voltage ΔV
45411	2	-40 to 100	BB	29 min. 35 max.	+ 3 max.	± 9 min.
45412	2	-40 to 100	BB	25 min. 40 max.	+ 3 max.	± 9 min.

40809 SERIES (Controlled-Avalanche Rectifiers)
Avalanche Voltage to 1300 V

RCA TYPE	Forward Current				Package (See Below)	Voltage V_{RRM} V	Temp. Range Operating $^\circ\text{C}$	Voltage Drop		Avalanche Voltage at 10 μA		
	Av. I_o A	RMS I_F (RMS) A	Surge I_{FSM} A	Temp.- T_C $^\circ\text{C}$				V_F V	I_o A	min. V	max. V	T_A $^\circ\text{C}$
40808	0.5	—	35	75 $\blacklozenge$	Z	600	-65 to 175	1.2	1	700	1100	25
40809	0.5	—	35	75 $\blacklozenge$	Z	800	-65 to 175	1.2	1	900	1300	25

 $\dagger$ **1N1616 SERIES (Rectifiers)**

1N1612	5	—	—	135	DD	50	-65 to 175	1.5	10	—	—	—
1N1613	5	—	—	135	DD	100	-65 to 175	1.5	10	—	—	—
1N1614	5	—	—	135	DD	200	-65 to 175	1.5	10	—	—	—
1N1615	5	—	—	135	DD	400	-65 to 175	1.5	10	—	—	—
1N1616	5	—	—	135	DD	600	-65 to 175	1.5	10	—	—	—

 $\dagger$ **1N1348B SERIES (Rectifiers)**

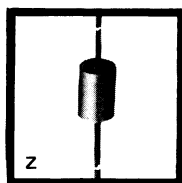
1N1341B	6	—	160	150	DD	50	-65 to 200	0.65 $\blacksquare$	6	—	—	—
1N1342B	6	—	160	150	DD	100	-65 to 200	0.65 $\blacksquare$	6	—	—	—
1N1344B	6	—	160	150	DD	200	-65 to 200	0.65 $\blacksquare$	6	—	—	—
1N1345B	6	—	160	150	DD	300	-65 to 200	0.65 $\blacksquare$	6	—	—	—
1N1346B	6	—	160	150	DD	400	-65 to 200	0.65 $\blacksquare$	6	—	—	—
1N1347B	6	—	160	150	DD	500	-65 to 200	0.65 $\blacksquare$	6	—	—	—
1N1348B	6	—	160	150	DD	600	-65 to 200	0.65 $\blacksquare$	6	—	—	—

 $\dagger$ **40115 SERIES (Rectifiers)**

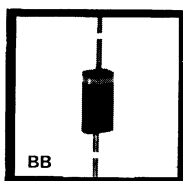
40108	10	—	140	150	DD	50	-65 to 175	0.6 $\blacksquare$	10	—	—	—
40109	10	—	140	150	DD	100	-65 to 175	0.6 $\blacksquare$	10	—	—	—
40110	10	—	140	150	DD	200	-65 to 175	0.6 $\blacksquare$	10	—	—	—
40111	10	—	140	150	DD	300	-65 to 175	0.6 $\blacksquare$	10	—	—	—
40112	10	—	140	150	DD	400	-65 to 175	0.6 $\blacksquare$	10	—	—	—
40113	10	—	140	150	DD	500	-65 to 175	0.6 $\blacksquare$	10	—	—	—
40114	10	—	140	150	DD	600	-65 to 175	0.6 $\blacksquare$	10	—	—	—
40115	10	—	140	150	DD	800	-65 to 175	0.6 $\blacksquare$	10	—	—	—

 $\blacklozenge$ T_A value

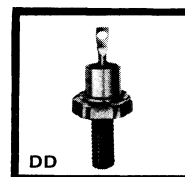
 $\dagger$ Reverse-polarity versions available

 $\blacksquare$ At full cycle average.


DO-26



JEDEC DO-15



DO-4

‡ 1N1206A SERIES (Rectifiers)

RCA TYPE	Av. I_O A	Forward Current			Package (See Below)	Voltage V_{RRM} V	Temp. Range Operating $^{\circ}C$	Voltage Drop		Rev. Recovery Time		
		RMS I_F (RMS) A	Surge I_{FSM} A	Temp. T_C $^{\circ}C$				V_F V	I_O A	t_{rr} μs	I_{FM} A	T_C $^{\circ}C$
1N1199A	12	—	240	150	DD	50	-65 to 200	0.55 •	12	—	—	—
1N1200A	12	—	240	150	DD	100	-65 to 200	0.55 •	12	—	—	—
1N1202A	12	—	240	150	DD	200	-65 to 200	0.55 •	12	—	—	—
1N1203A	12	—	240	150	DD	300	-65 to 200	0.55 •	12	—	—	—
1N1204A	12	—	240	150	DD	400	-65 to 200	0.55 •	12	—	—	—
1N1205A	12	—	240	150	DD	500	-65 to 200	0.55 •	12	—	—	—
1N1206A	12	—	240	150	DD	600	-65 to 200	0.55 •	12	—	—	—

‡ 40214 SERIES (Rectifiers)

40208	18	—	250	150	EE	50	-65 to 175	0.65 •	18	—	—	—
40209	18	—	250	150	EE	100	-65 to 175	0.65 •	18	—	—	—
40210	18	—	250	150	EE	200	-65 to 175	0.65 •	18	—	—	—
40211	18	—	250	150	EE	300	-65 to 175	0.65 •	18	—	—	—
40212	18	—	250	150	EE	400	-65 to 175	0.65 •	18	—	—	—
40213	18	—	250	150	EE	500	-65 to 175	0.65 •	18	—	—	—
40214	18	—	250	150	EE	600	-65 to 175	0.65 •	18	—	—	—

‡ 1N1198A SERIES (Rectifiers)

1N248C	20	—	350	150	EE	50	-65 to 175	0.6 •	20	—	—	—
1N249C	20	—	350	150	EE	100	-65 to 175	0.6 •	20	—	—	—
1N250C	20	—	350	150	EE	200	-65 to 175	0.6 •	20	—	—	—
1N1195A	20	—	350	150	EE	300	-65 to 175	0.6 •	20	—	—	—
1N1196A	20	—	350	150	EE	400	-65 to 175	0.6 •	20	—	—	—
1N1197A	20	—	350	150	EE	500	-65 to 175	0.6 •	20	—	—	—
1N1198A	20	—	350	150	EE	600	-65 to 175	0.6 •	20	—	—	—

‡ 1N1190A SERIES (Rectifiers)

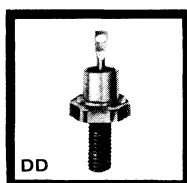
1N1183A	40	—	800	150	EE	50	-65 to 200	0.65 •	40	—	—	—
1N1184A	40	—	800	150	EE	100	-65 to 200	0.65 •	40	—	—	—
1N1186A	40	—	800	150	EE	200	-65 to 200	0.65 •	40	—	—	—
1N1187A	40	—	800	150	EE	300	-65 to 200	0.65 •	40	—	—	—
1N1188A	40	—	800	150	EE	400	-65 to 200	0.65 •	40	—	—	—
1N1189A	40	—	800	150	EE	500	-65 to 200	0.65 •	40	—	—	—
1N1190A	40	—	800	150	EE	600	-65 to 200	0.65 •	40	—	—	—

‡ 40960 SERIES (Rectifiers)—Fast-Recovery Types

40956	40	60	700	165	EE	50	-40 to 150	1.8	100	0.35	125	25
40957	40	60	700	165	EE	100	-40 to 150	1.8	100	0.35	125	25
40958	40	60	700	165	EE	200	-40 to 150	1.8	100	0.35	125	25
40959	40	60	700	165	EE	400	-40 to 150	1.8	100	0.35	125	25
40960	40	60	700	165	EE	600	-40 to 150	1.8	100	0.35	125	25

‡ Reverse-polarity versions available

• At full cycle average.



DO-4



DO-5

CR101 SERIES (High-Voltage Rectifier Assemblies)

RCA TYPE	Av. I_o A	Forward Current			Package (See Below)	Voltage V_{RRM} V	Temp. Range Operating $^{\circ}C$	Voltage Drop		Rev. Recovery Time		
		RMS I_F (RMS) A	Surge I_{FSM} A	Temp. T_A $^{\circ}C$				v_F V	I_o A	t_{rr} μs	I_{FM} A	T_A $^{\circ}C$
CR101	1	—	20	60	FF	1265	-65 to 125	1.2 $\pm$	1	—	—	—
CR102	0.925	—	20	60	FF	2530	-65 to 125	2.4 $\pm$	0.925	—	—	—
CR103	0.825	—	20	60	FF	3165	-65 to 125	3 $\pm$	0.825	—	—	—
CR104	0.7	—	20	60	FF	4430	-65 to 125	4.2 $\pm$	0.7	—	—	—
CR105	0.7	—	20	60	FF	5065	-65 to 125	4.8 $\pm$	0.7	—	—	—
CR106	0.65	—	20	60	FF	6330	-65 to 125	6 $\pm$	0.65	—	—	—
CR107	0.6	—	20	60	FF	7595	-65 to 125	7.2 $\pm$	0.6	—	—	—
CR108	0.6	—	20	60	FF	8230	-65 to 125	7.8 $\pm$	0.6	—	—	—
CR109	0.6	—	20	60	FF	9495	-65 to 125	9 $\pm$	0.6	—	—	—
CR110	0.6	—	20	60	FF	10130	-65 to 125	9.6 $\pm$	0.6	—	—	—

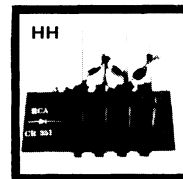
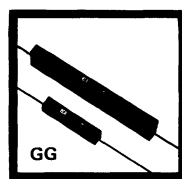
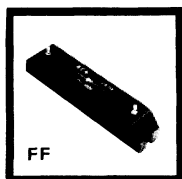
CR212 SERIES (High-Voltage Rectifier Assemblies)

CR201	0.615	—	12	25	GG	1900	-65 to 125	1.8 $\pm$	0.615	—	—	—
CR203	0.615	—	12	25	GG	3165	-65 to 125	3 $\pm$	0.615	—	—	—
CR204	0.615	—	12	25	GG	4800	-65 to 125	3.6 $\pm$	0.615	—	—	—
CR206	0.615	—	12	25	GG	6330	-65 to 125	6 $\pm$	0.615	—	—	—
CR208	0.615	—	12	25	GG	8000	-65 to 125	6 $\pm$	0.615	—	—	—
CR210	0.615	—	12	25	GG	10000	-65 to 125	7.2 $\pm$	0.615	—	—	—
CR212	0.615	—	12	25	GG	12000	-65 to 125	9 $\pm$	0.615	—	—	—
CR280	0.615	—	12	25	GG	24000	-65 to 125	18 $\pm$	0.615	—	—	—

CR301 SERIES (High-Voltage Rectifier Assemblies)—Fin Mounted

CR301	5	—	250	50	HH	2400	-55 to 125	4	5	—	—	—
CR302	5	—	250	50	HH	3600	-55 to 125	6	5	—	—	—
CR303	5	—	250	50	HH	4800	-55 to 125	8	5	—	—	—
CR304	5	—	250	50	HH	6000	-55 to 125	10	5	—	—	—
CR305	5	—	250	50	HH	7200	-55 to 125	12	5	—	—	—
CR306	5	—	250	50	HH	8400	-55 to 125	14	5	—	—	—
CR307	5	—	250	50	HH	9600	-55 to 125	16	5	—	—	—
CR311	9	—	250	50	HH	2400	-55 to 125	4.4	9	—	—	—
CR312	9	—	250	50	HH	3600	-55 to 125	6.6	9	—	—	—
CR313	9	—	250	50	HH	4800	-55 to 125	8.8	9	—	—	—
CR314	9	—	250	50	HH	6000	-55 to 125	11	9	—	—	—
CR315	9	—	250	50	HH	7200	-55 to 125	13.2	9	—	—	—
CR316	9	—	250	50	HH	8400	-55 to 125	15.4	9	—	—	—
CR317	9	—	250	50	HH	9600	-55 to 125	17.6	9	—	—	—
CR321	12	—	400	50	HH	2400	-55 to 125	4.3	12	—	—	—
CR322	12	—	400	50	HH	3600	-55 to 125	6.5	12	—	—	—
CR323	12	—	400	50	HH	4800	-55 to 125	8.6	12	—	—	—
CR324	12	—	400	50	HH	6000	-55 to 125	10.8	12	—	—	—
CR325	12	—	400	50	HH	7200	-55 to 125	13.0	12	—	—	—
CR331	17	—	400	50	HH	2400	-55 to 125	4.5	17	—	—	—
CR332	17	—	400	50	HH	3600	-55 to 125	6.7	17	—	—	—
CR333	17	—	400	50	HH	4800	-55 to 125	9	17	—	—	—
CR334	17	—	400	50	HH	6000	-55 to 125	11.2	17	—	—	—
CR335	17	—	400	50	HH	7200	-55 to 125	13.4	17	—	—	—

† At full cycle average



CR301 SERIES (Cont'd)

RCA TYPE	Av. I_o A	Forward Current			Package (See Below)	Voltage V_{RRM} V	Temp. Range Operating $^{\circ}C$	Voltage Drop		Rev. Recovery Time		
		I_F (RMS) A	I_{FSM} A	Temp. T_A $^{\circ}C$				v_F V	I_o A	t_{rr} μs	I_{FM} A	T_A $^{\circ}C$
CR341	23	—	850	50	HH	2400	-55 to 125	4.3	23	—	—	—
CR342	23	—	850	50	HH	3600	-55 to 125	6.5	23	—	—	—
CR343	23	—	850	50	HH	4800	-55 to 125	8.6	23	—	—	—
CR344	23	—	850	50	HH	6000	-55 to 125	10.8	23	—	—	—
CR351	35	—	850	50	HH	2400	-55 to 125	4.5	35	—	—	—
CR352	35	—	850	50	HH	3600	-55 to 125	6.8	35	—	—	—
CR353	35	—	850	50	HH	4800	-55 to 125	9	35	—	—	—
CR354	35	—	850	50	HH	6000	-55 to 125	11.3	35	—	—	—

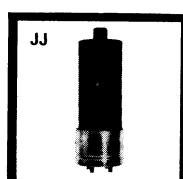
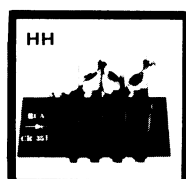
REPLACEMENT MODULES FOR THE CR301 SERIES

	CR301 to CR307	CR311 to CR317	CR321 to CR325	CR331 to CR335	CR341 to CR344	CR351 to CR354
Right Hand Unit	QR2900	QR2902	QR2904	QR2906	QR2908	QR2910
Left Hand Unit	QR2901	QR2903	QR2905	QR2907	QR2909	QR2911

High-Voltage Rectifiers for Replacement[■]
Encapsulated Package, 4-Pin Bayonet Base

	Package (See Below)
CR273/ 8008	JJ
CR274/ 872A	JJ
CR275/ 866A/ 3B25/ 3B28	JJ

■ These high-voltage rectifiers are direct replacements for the mercury vapor and gas rectifier tubes indicated.



Designers' Guide For Rectifier Circuits

To Determine Value of Parameter in Column I (Row 7-14),
Multiply Value of Parameter in Column II by Factor Shown in Column III*.

ROW	COLUMN I			COLUMN II			
1	SAMPLE CALCULATION			Type of Circuit			
2	Required: Single-phase, center-tapped, full-wave rectifier, resistive load (Column III, ASA Circuit No. 2)			Primary			
3	DC output voltage (E_{AVG}) = 2000 volts DC output current (I_{AVG}) = 13 amperes Rectifier Device Parameters (per unit)— $PRV = E_{AVG} \times 3.14 = 2000 \times 3.14 = 6280$ volts (Row 9) $I_{FAV} = I_{AVG} \times 0.500 = 13 \times 0.500 = 6.5$ amperes (Row 10) $I_{RMS} = I_{AVG} \times 0.785 = 13 \times 0.785 = 10.2$ amperes (Row 11) $I_{PEAK} = I_{AVG} \times 1.57 = 13 \times 1.57 = 20.4$ amperes (Row 12) Transformer Requirement (secondary volts per leg)— $E_{RMSsec} = PRV / 2.82 = 6280 / 2.82 = 2220$ volts (Row 9)			Secondary			
4	Ripple Percentage for this circuit = 48% (Row 14)			Waveform of output voltage to circuit			
5	This chart is intended as an aid in selecting the proper RCA rectifier device. It is emphasized that many critical power-supply-design parameters are not included in this Table. For example: transformer impedance, circuit protective elements, transient and cooling considerations, available space, and other important design factors must be resolved.			Waveform of current through rectifier legs			
6				Number of rectifier elements in circuit			
7	RMS DC volts output (E_{RMS})		=	Average DC voltage output (E_{AVG})		X	
8	Peak DC volts output (E_{PEAK})		=	Average DC voltage output (E_{AVG})		X	
9	Peak reverse volts per rectifier element (PRV)		=	Average DC voltage output (E_{AVG})		X	
			=	RMS secondary volts per transformer leg (E_{RMSsec})		X	
			=	RMS secondary volts line-to-line (E_{L-L})		X	
10	Average DC output current per rectifier element (I_{FAV})		=	Average DC output current (I_{AVG})		X	
11	RMS current per rectifier element (I_{RMS})	Resistive Load	=	Average DC output current (I_{AVG})		X	
		Inductive Load	=	Average DC output current (I_{AVG})		X	
12	Peak current per rectifier element (I_{PEAK})	Resistive Load	=	Average DC output current (I_{AVG})		X	
		Inductive Load	=	Average DC output current (I_{AVG})		X	
13	Ratio: Peak to average current per element	Resistive Load					
		Inductive Load					
14	$\% \text{ Ripple} = \left(\frac{\text{RMS Ripple}}{\text{Average Output Volts}} \right) \times 100$						

*Assumes zero forward drop and zero reverse current in rectifier elements and no AC line or source reactance.

	COLUMN III							ROW
	Single-Phase Half-Wave ASA Circuit No. 1*	Single-Phase Center-Tapped Full-Wave ASA Circuit No. 2*	Single-Phase Full-Wave Bridge ASA Circuit No. 21*	Three-Phase Y Half-Wave ASA Circuit No. 3*	Three-Phase Y Full-Wave Bridge ASA Circuit No. 23*	Six-Phase Star (Three-Phase) Diametric ASA Circuit No. 9*	Three-Phase Double Y and Interphase Transformer ASA Circuit No. 45*	1
								2
								3
								4
								5
	1	2	4	3	6	6	6	6
	1.57	1.11	1.11	1.02	1.00	1.00	1.00	7
	3.14	1.57	1.57	1.21	1.05	1.05	1.05	8
	3.14	3.14	1.57	2.09	1.05	2.42	2.09	9
	1.41	2.82	1.41	2.45	2.45	2.83	2.45	
	1.41	1.41	1.41	1.41	1.41	1.41	1.41 (DIAMETRIC)	
	1.00	0.500	0.500	0.333	0.333	0.167	0.167	10
	1.57	0.785	0.785	0.587	0.579	0.409	0.293	11
	—	0.707	0.707	0.578	0.578	0.408	0.289	
	3.14	1.57	1.57	1.21	1.05	1.05	0.525	12
	—	1.00	1.00	1.00	1.00	1.00	0.500	
	3.14	3.14	3.14	3.63	3.15	6.30	3.15	13
	—	2.00	2.00	3.00	3.00	6.00	3.00	
	121	48	48	18.3	4.3	4.3	4.3	14

* ASA Standard Publication No. C34.1—1958.