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Transistors

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Les caractéristiques des principaux transistors

Type	Polarité	Boitier	P _{tot} mV	Gain de courant B	Tension inverse de collecteur U _{CBO} ; V	Courant collecteur I _c ; mA/A	Fréquence de coupure f ; MHz
AC 121	PNP	TO-1	220	30...250	20	300	1,5
AC 125	PNP	TO-1	220	>50	31	200	>1,3
AC 127	NPN	TO-1	175	105	12	500	>1,5
AC 128	PNP	TO-1	220	50...250	16	2A	>1,0
AC 151	PNP	TO-1	220	30...250	24	200	1,5
AC 152	PNP	TO-1	220	30...150	24	500	1,5
AC 153	PNP	TO-1	220	50...250	18	2A	>1
AC 176	NPN	TO-1	220	50...250	18	2A	>1
AC 187	NPN	TO-1	220	100...500	15	2A	>1
AC 188	PNP	TO-1	220	100...500	15	2A	>1
AD 130	PNP	TO-3	30W+	20...100	30	3A	0,35
AD 133	PNP	-	36W+	20...100	20	15A	0,3
AD 149	PNP	TO-3	27,5W+	30...180	30	3,5A	>0,3
AD 161	NPN	-	3,5W-	50...350	20	3A	>1
AD 162	PNP	-	3,5W-	50...350	20	3A	>1
AF 106	PNP	TO-72	60	>25	18	10	220
AF 124	PNP	TO-72	60	150	15	10	75
AF 125	PNP	TO-72	60	150	15	10	75
AF 126	PNP	TO-72	60	150	15	10	75
AF 127	PNP	TO-72	60	150	15	10	75
AF 139	PNP	TO-72	60	>10	15	10	550
AF 239	PNP	TO-72	60	>10	15	10	700
AF 240	PNP	TO-72	60	-	15	10	500
AF 279	PNP	-	60	>10	15	10	780
AF 289	PNP	TO-119	60	-	15	10	750
AF 379	PNP	TO-119	100	>25	13	20	>950
AL 103	PNP	TO-3	30W+	40...250	40	10	3
BC 107	NPN	TO-18	300	125...500	45	200	>150
BC 108	NPN	TO-18	300	125...900	20	200	>150

3.1 Caractéristiques des principaux transistors

Type	Polarité	Boitier	P _{tot} mV	Gain de courant B	Tension inverse de collecteur U _{CBO} ; V	Courant collecteur I _c ; mA/A	Fréquence de coupure f ; MHz
BC 109	NPN	TO-18	300	240...900	20	200	>150
BC 121	NPN	U-32	250	-	5	75	250
BC 122	NPN	U-32	250	-	20	75	250
BC 123	NPN	U-32	250	-	30	75	250
BC 140	NPN	TO-39	750	>40	40	1A	>50
BC 141	NPN	TO-39	750	>40	60	1A	>50
BC 142	NPN	TO-39	800	>20	60	1A	>50
BC 143	PNP	TO-39	800	>20	60	1A	-
BC 147	NPN	-	250	125...500	45	200	>150
BC 148	NPN	-	250	125...900	20	200	>150
BC 160	PNP	TO-39	3,7W	-	40	1A	>50
BC 161	PNP	TO-39	3,7W	-	60	1A	>50
BC 167	NPN	TO-92	300	125...500	45	200	>150
BC 168	NPN	TO-92	300	125...900	20	200	>150
BC 169	NPN	TO-92	300	-	20	-	300
BC 170	NPN	-	300	>35	20	100	100
BC 171	NPN	-	300	125...500	45	200	>150
BC 172	NPN	-	300	125...900	25	200	>150
BC 173	NPN	-	300	125...900	25	200	>150
BC 174	NPN	-	300	125...500	64	200	>150
BC 177	PNP	TO-18	300	75...500	45	200	130
BC 178	PNP	TO-18	300	75...900	25	200	130
BC 179	PNP	TO-18	300	125...900	20	200	130
BC 182	PNP	TO-92	300	125...500	50	200	280
BC 183	NPN	TO-92	300	125...900	30	200	280
BC 184	NPN	TO-92	300	240...900	30	200	280
BC 201	PNP	U-32	250	-	5	75	80
BC 202	PNP	U-32	250	-	30	75	80
BC 203	PNP	U-32	250	-	45	75	80
BC 212	PNP	TO-92	300	>60	60	200	350
BC 213	PNP	TO-92	300	>80	45	200	350
BC 214	PNP	TO-92	300	>140	30	200	350
BC 223	NPN	-	360	100...450	30	800	-
BC 237	NPN	TO-92	300	125...500	45	200	>150
BC 238	NPN	TO-92	300	125...900	20	200	>150
BC 239	NPN	TO-92	300	240...900	20	200	>150
BC 250	PNP	-	300	35...600	20	100	180
BC 251	PNP	-	300	125...900	45	200	130
BC 252	PNP	-	300	125...900	25	200	130
BC 253	PNP	-	300	125...900	25	200	130
BC 256	PNP	-	300	125...500	64	200	130
BC 257	PNP	TO-92	300	125...900	45	200	130

3.1 Caractéristiques des principaux transistors

Type	Polarité	Boitier	P _{tot} mV	Gain de courant B	Tension inverse de collecteur U _{cb0} ; V	Courant collecteur I _c ; mA/A	Fréquence de coupure f ; MHz
BC 258	PNP	TO-92	300	50...900	25	200	130
BC 259	PNP	TO-92	300	125...900	20	50	130
BC 307	PNP	TO-92	300	75...900	45	200	130
BC 308	PNP	TO-92	300	75...900	25	200	130
BC 309	PNP	TO-92	300	125...900	20	200	130
BC 327	PNP	TO-92	625	—	50	800	100
BC 328	PNP	TO-92	625	—	30	800	100
BC 337	NPN	TO-92	625	>100	45	1A	200
BC 338	NPN	TO-92	625	100...630	25	1A	200
BC 368	NPN	TO-92	800	85...375	20	2A	60
BC 369	PNP	TO-92	300	240...900	30	2A	60
BC 413	NPN	TO-92	300	240...900	30	100	250
BC 414	NPN	TO-92	300	240...900	45	100	250
BC 415	PNP	TO-92	300	125...900	30	100	200
BC 416	PNP	TO-92	300	125...900	45	100	200
BC 516	PNP	TO-92	625	30000	30	400	250
BC 517	NPN	TO-92	625	>30000	30	400	220
BC 546	NPN	TO-92	500	>500	65	200	300
BC 547	NPN	TO-92	500	>900	45	200	300
BC 548	NPN	TO-92	500	>900	30	200	300
BC 549	NPN	TO-92	500	>900	30	200	300
BC 550	NPN	TO-92	500	>900	45	200	300
BC 556	PNP	TO-92	500	>500	65	200	150
BC 557	PNP	TO-92	500	>500	45	200	150
BC 558	PNP	TO-92	500	>900	30	200	150
BC 559	PNP	TO-92	500	>900	30	200	150
BC 560	PNP	TO-92	500	>900	45	200	150
BC 617	NPN	TO-92	625	—	50	1A	150
BC 618	NPN	TO-92	625	—	80	1A	150
BC 635	NPN	TO-92	800	40...250	45	1,5A	130
BC 636	PNP	TO-92	800	40...250	45	1,5A	50
BC 637	NPN	TO-92	800	40...160	60	1,5A	130
BC 638	PNP	TO-92	800	—	60	1A	130
BC 639	NPN	TO-92	800	—	100	1A	130
BC 640	PNP	TO-92	800	—	100	1A	130
BC 875	NPN	TO-92	800	—	60	1A	200
BC 876	PNP	TO-92	800	—	60	1A	200
BC 877	NPN	TO-92	800	—	80	1A	200
BC 878	PNP	TO-92	800	—	80	1A	200
BC 879	NPN	TO-92	800	—	100	1A	200
BC 880	PNP	TO-92	800	—	100	1A	200
BD 135	NPN	TO-126	7,5W—	40...250	45	2A	>50
BD 136	PNP	TO-126	7,5W—	40...250	45	2A	>75

3.1 Caractéristiques des principaux transistors

Type	Polarité	Boitier	P _{tot} mV	Gain de courant B	Tension inverse de collecteur U _{CBO} ; V	Courant collecteur I _c ; mA/A	Fréquence de coupure f ; MHz
BD 137	NPN	TO-126	7,5W-	40...160	60	2A	>50
BD 138	PNP	TO-126	7,5W-	40...160	60	2A	>75
BD 139	NPN	TO-126	7,5W-	40...160	80	2A	>50
BD 140	PNP	TO-126	7,5W-	40...160	80	2A	>75
BD 163	NPN	-	23W	25...180	40	4A	0,8
BD 165	NPN	TO-126	20W	>15	45	3A	>3
BD 169	NPN	TO-126	20W	>15	80	3A	>3
BD 175	NPN	TO-126	30W	>40	45	6A	>3
BD 176	PNP	TO-126	30W	>40	45	6A	>3
BD 177	NPN	TO-126	30W	>40	60	6A	>3
BD 178	PNP	TO-126	30W	>40	60	6A	>3
BD 179	NPN	TO-126	30W	>40	80	6A	>3
BD 233	NPN	TO-126	25W	40...250	45	6A	>3
BD 234	PNP	TO-126	25W	40...250	45	6A	>3
BD 235	NPN	TO-126	25W	40...250	60	6A	>3
BD 236	PNP	TO-126	25W	40...250	60	6A	>3
BD 237	NPN	TO-126	25W	40...160	80	6A	>3
BD 238	PNP	TO-126	25W	40...160	80	6A	>3
BD 239	NPN	TO-220	30W	>40	45	4A	>3
BD 240	PNP	TO-220	30W	>40	45	4A	>3
BD 241	NPN	TO-220	40W	>25	45	5A	>3
BD 242	PNP	TO-220	40W	>25	45	5A	>3
BD 243	NPN	TO-220	65W	>15	45	10A	>3
BD 244	PNP	TO-220	65W	>15	45	10A	>3
BD 245	NPN	-	80W	>20	45	15A	>3
BD 246	PNP	-	80W	>20	45	15A	>3
BD 250	PNP	-	125W	>10	45	40A	>3
BD 287	PNP	TO-126	36W	-	30	12A	50
BD 288	PNP	TO-126	36W	-	45	12A	50
BD 329	NPN	TO-126	15W	-	20	3A	130
BD 330	PNP	TO-126	15W	-	20	3A	100
BD 410	NPN	TO-126	20W	30...240	325	1,5A	-
BD 424	NPN	TO-202	2,5W	-	100	0,8A	100
BD 429	NPN	TO-202	10W	-	20	3A	130
BD 430	PNP	TO-202	10W	-	20	3A	100
BD 433	NPN	TO-126	36W	>85	22	7A	>3
BD 434	PNP	TO-126	36W	>85	22	7A	>3
BD 435	NPN	TO-126	36W	>85	32	7A	>3
BD 436	PNP	TO-126	36W	-	32	4A	>3
BD 437	NPN	TO-126	36W	>85	45	7A	>3
BD 438	PNP	TO-126	36W	>85	45	7A	>3
BD 439	NPN	TO-126	36W	>40	60	7A	>3

3.1 Caractéristiques des principaux transistors

Type	Polarité	Boîtier	P _{tot} mW	Gain de courant B	Tension inverse de collecteur U _{CB0} ; V	Courant collecteur I _c ; mA/A	Fréquence de coupure f ; MHz
BD 440	PNP	TO-126	36W	>40	60	7A	>3
BD 441	NPN	TO-126	36W	>40	80	7A	>3
BD 442	PNP	TO-126	36W	>40	80	7A	>3
BD 487	PNP	TO-202	12,5W	-	30	12A	>50
BD 488	PNP	TO-202	12,5W	-	45	12A	>50
BD 517	NPN	-	10W	>25	60	2A	>50
BD 518	PNP	-	10W	>25	60	2A	>50
BD 524	NPN	TO-126	5W	-	100	1A	100
BD 533	NPN	TO-220	50W	>25	45	8A	>3
BD 534	PNP	TO-220	50W	>25	45	8A	>3
BD 535	NPN	TO-220	50W	>25	60	8A	>3
BD 536	PNP	TO-220	50W	>25	60	8A	>3
BD 537	NPN	TO-220	50W	>15	80	8A	>3
BD 538	PNP	TO-220	50W	>15	80	8A	>3
BD 611	NPN	TO-202	15W	-	22	4A	>3
BD 612	PNP	TO-202	15W	-	22	4A	>3
BD 613	NPN	TO-202	15W	-	32	4A	>3
BD 614	PNP	TO-202	15W	-	32	4A	>3
BD 615	NPN	TO-202	15W	-	45	4A	>3
BD 616	PNP	TO-202	15W	-	45	4A	>3
BD 617	NPN	TO-202	15W	-	60	4A	>3
BD 618	PNP	TO-202	15W	-	60	4A	>3
BD 619	NPN	TO-202	15W	-	80	4A	>3
BD 620	PNP	TO-202	15W	-	80	4A	>3
BD 643	NPN	TO-220	62,5W	-	45	8A	>1
BD 644	PNP	TO-220	62,5W	-	45	8A	>1
BD 645	NPN	TO-220	62,5W	>750	60	8A	>1
BD 646	PNP	TO-220	62,5W	>750	60	8A	>1
BD 647	NPN	TO-220	62,5W	>750	80	8A	>1
BD 648	PNP	TO-220	62,5W	>750	80	8A	>1
BD 649	NPN	TO-220	62,5W	>750	100	8A	>1
BD 650	PNP	TO-220	62,5W	>750	100	8A	>1
BD 675	NPN	TO-126	40W	-	45	4A	>1
BD 676	PNP	TO-126	40W	-	45	4A	>1
BD 677	NPN	TO-126	40W	-	60	4A	>1
BD 678	PNP	TO-126	40W	-	60	4A	>1
BD 679	NPN	TO-126	40W	-	80	4A	>1
BD 680	PNP	TO-126	40W	-	80	4A	>1
BD 707	NPN	TO-220	75W	>30	60	12A	>3
BD 710	PNP	TO-220	75W	>30	80	12A	>3
BD 712	PNP	TO-220	75W	>30	100	12A	>3
BD 825	NPN	TO-202	8W	-	45	1,5A	>50

3.1 Caractéristiques des principaux transistors

Type	Polarité	Boitier	P _{tot} mW	Gain de courant B	Tension inverse de collecteur U _{CSO} ; V	Courant collecteur I _C ; mA/A	Fréquence de coupure f ; MHz
BD 826	PNP	TO-202	8W	–	45	1,5A	>50
BD 827	NPN	TO-202	8W	–	60	1,5A	>50
BD 828	PNP	TO-202	8W	–	60	1,5A	>50
BD 829	NPN	TO-202	8W	–	–	1,5A	>50
BD 830	PNP	TO-202	8W	–	–	1,5A	>50
BD 861	NPN	TO-202	15W	–	45	4A	>1
BD 862	PNP	TO-202	15W	–	45	4A	>1
BD 863	NPN	TO-202	15W	–	60	4A	>1
BD 864	PNP	TO-202	15W	–	60	4A	>1
BD 865	NPN	TO-202	15W	–	80	4A	>1
BD 866	PNP	TO-202	15W	–	80	4A	>1
BD 875	NPN	TO-126	9W	–	60	1A	200
BD 876	PNP	TO-126	9W	–	60	1A	200
BD 877	NPN	TO-126	9W	–	80	1A	200
BD 878	PNP	TO-126	9W	–	80	1A	200
BD 879	NPN	TO-126	9W	–	100	1A	200
BD 880	PNP	TO-126	9W	–	100	1A	200
BD 975	NPN	TO-202	3,6W	–	60	1A	200
BD 976	PNP	TO-202	3,6W	–	60	1A	200
BD 977	NPN	TO-202	3,6W	–	80	1A	200
BD 978	PNP	TO-202	3,6W	–	80	1A	200
BD 979	NPN	TO-202	3,6W	–	100	1A	200
BD 980	PNP	TO-202	3,6W	–	100	1A	200
BF 115	NPN	–	145	48...167	30	30	230
BF 185	NPN	–	145	36...125	20	30	200
BF 194	NPN	TO-92	220	67...220	20	30	260
BF 195	NPN	TO-92	220	36...125	20	30	200
BF 196	NPN	TO-92	250	>26	30	25	400
BF 198	NPN	TO-92	500	>26	30	25	400
BF 199	NPN	TO-92	500	>38	25	25	550
BF 200	NPN	–	150	>15	20	20	650
BF 240	NPN	TO-92	250	–	40	25	400
BF 241	NPN	TO-92	250	35...125	40	25	400
BF 244	NPN	TO-92	300	3,0...6,5	30	10	700
BF 245	NPN	TO-92	300	3,0...6,5	30	10	700
BF 246	NPN	TO-92	300	8...17	25	10	450
BF 254	NPN	TO-92	300	65...220	20	30	260
BF 255	NPN	TO-92	625	35...125	20	100	200
BF 256	NPN	TO-92	300	>4,5	30	10	1 GHz
BF 257	NPN	TO-39	1W	>25	160	200	100
BF 258	NPN	TO-39	1W	>25	250	200	100
BF 259	NPN	TO-39	1W	>25	300	200	100
BF 324	PNP	TO-92	250	25...160	30	25	450

Partie 7 : Tableaux de caractéristiques

3.1 Caractéristiques des principaux transistors

Type	Polarité	Boitier	P _{tot} mV	Gain de courant B	Tension inverse de collecteur U _{ceo} ; V	Courant collecteur I _c ; mA/A	Fréquence de coupure f ; MHz
BF 362	NPN	TO-119	120	-	20	20	800
BF 363	NPN	TO-119	120	-	20	20	800
BF 414	PNP	TO-92	300	-	40	25	560
BF 420	NPN	TO-92	830	-	300	25	≥60
BF 421	PNP	TO-92	830	-	300	25	≥60
BF 422	NPN	TO-92	830	>50	250	25	≥60
BF 423	PNP	TO-92	830	>50	250	25	≥60
BF 450	PNP	TO-92	250	>60	40	25	325
BF 451	PNP	TO-92	250	>30	40	25	325
BF 457	NPN	TO-126	1,2W	25	160	100	90
BF 458	NPN	TO-126	1,2W	25	270	100	90
BF 459	NPN	TO-126	1,2W	25	300	100	90
BF 469	NPN	TO-126	2W	-	250	30	≥60
BF 470	PNP	TO-126	2W	-	250	30	≥60
BF 471	NPN	TO-126	2W	-	300	30	≥60
BF 472	PNP	TO-126	2W	-	300	30	≥60
BF 479	PNP	-	170	>20	25	50	2 GHz
BF 480	NPN	-	140	>10	25	30	1,6 GHz
BF 494	NPN	TO-92	300	65...220	20	30	260
BF 495	NPN	TO-92	300	35...125	20	30	200
BF 502	NPN	TO-92	500	-	40	50	700
BF 503	NPN	TO-92	500	-	40	20	750
BF 505	NPN	TO-92	500	-	30	20	≥750
BF 506	PNP	TO-92	300	-	40	30	550
BF 507	NPN	TO-92	500	-	30	20	≥750
BF 550	PNP	TO-236	150	-	40	25	375
BF 554	NPN	TO-236	150	-	30	30	260
BF 562	NPN	TO-92	250	-	30	20	600
BF 568	PNP	TO-236	220	-	40	30	1100
BF 569	PNP	TO-236	220	-	40	30	850
BF 579	PNP	TO-236	220	-	20	30	1600
BF 599	NPN	TO-236	150	-	40	25	550
BF 622	NPN	SOT-89	2W	-	250	20	>60
BF 623	PNP	SOT-89	2W	-	250	20	>60
BF 660	PNP	TO-236	150	-	40	25	650
BF 767	PNP	TO-236	200	-	30	20	950
BF 847	PNP	TO-202	1,8W	-	160	100	90
BF 848	PNP	TO-202	1,8W	-	270	100	90
BF 849	PNP	TO-202	1,8W	-	300	100	90
BF 857	NPN	TO-202	1,8W	-	160	100	90
BF 858	NPN	TO-202	1,8W	-	270	100	90

3.1 Caractéristiques des principaux transistors

Type	Polarité	Boitier	P_{tot} mW	Gain de courant B	Tension inverse de collecteur U_{CBO} ; V	Courant collecteur I_c ; mA/A	Fréquence de coupure f ; MHz
BF 859	NPN	TO-202	1,8W	—	300	100	90
BF 869	NPN	TO-202	1,6W	—	250	30	≥ 60
BF 870	PNP	TO-202	1,6W	—	250	30	≥ 60
BF 871	NPN	TO-202	1,6W	—	300	30	≥ 60
BF 872	PNP	TO-202	1,6W	—	300	30	≥ 60
BF 926	PNP	TO-92	300	—	40	25	600
BF 939	HF	TO-92	350	—	30	20	750
BF 959	NPN	TO-92	500	—	39	—	1100

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Tableau d'équivalence des principaux transistors Europe - USA - Japon

Type Européen	Types équivalents USA	Japonais
AC 121	2N526 (2N2431)	(2SB415)
AC 125	(2N2428; 2N2429)	(2SA202; 2SB415)
AC 127	(2N2430)	(2SD96; 2SD105)
AC 128	(2N467; 2N4106; 2N1373; 2N2431)	(2SB370; 2SB415)
AC 151	(2N238; 2N2429)	(2SB439)
AC 152	2N526 (2N238; 2N1924; 2N2431)	(2SB156; 2SB415)
AC 153	2N2431 (2N467)	(2SB415)
AC 187	(2N2707)	—
AD 130	2N1359; 2N392	—
AD 133	2N677 (2N1146; 2N1549)	(2SB236)
AD 149	2N1359; 2N392; 2N1540 (2N456; 2N2836)	(2SB425)
AD 161	—	(2SB426)
AD 162	2N5879; 2N5888; 2N5893	(2SB367)
AF 106	—	(2SA230)
AF 124	(2N346; 2N4035; 2N2495)	(2SA235; 2SA433)
AF 125	(2N991; 2N1110)	(2SA156; 2SA433)
AF 126	(2N641)	(2SA240; 2SA433)
AF 127	(2N642; 2N4034; 2N993)	(2SA433; 2SA240)
AF 139	(M9031; 2N2244; MM139)	—
AL 103	2N1905; 2N2293; 2N5324 (2N2148)	—
BC 107	(2N3568; 2N2921)	(2SC458)
BC 108	(MPS6520)	—
BC 109	(MPS6521)	—
BC 140	2N3109 (2N3036)	(2SC708)
BC 141	2N3107 (2N3020; 2N3036)	—
BC 142	(2N3020; 2N3036; 2N2219)	—
BC 143	(MM3726; 2N1132)	—
BC 147	(MPS6566)	—
BC 148	(MPS6520)	—
BC 160	(2N1132; 2N2904; MM3726)	—
BC 161	2N4032 (2N4037; 2N2904)	—

3.2 Equivalence des principaux transistors Europe, USA, Japon

Type Européen	Types équivalents USA	Japonais
BC 167	2N5310 (MPS6566)	(2SC458)
BC 168	2N5310 (MPS6520)	—
BC 169	(MPS6521)	—
BC 171	(MPS6566; 2N2921)	(2SC458)
BC 172	(MPS6520)	(2SC458)
BC 173	(MPS6521)	(2SC458)
BC 177	(MPS6517)	(2SA565)
BC 178	(MPS6518)	(2SA565)
BC 179	(MPS6519)	—
BC 182	(MPS6566)	—
BC 183	(MPS6520)	—
BC 184	(MPS6521)	—
BC 201	—	(2SA565)
BC 202	—	(2SA565)
BC 203	—	(2SA565)
BC 223	2N2222 (2N3704)	—
BC 237	(MPS6566)	—
BC 238	(MPS6520)	—
BC 239	(MPS6521)	—
BC 253	—	(2SA565)
BC 257	(MPS6517)	2SA561
BC 258	2N5367 (MPS6518)	(2SA565)
BC 259	2N5999 (MPS6519)	—
BC 307	(MPS6517)	—
BC 308	(MPS6518)	—
BC 309	(MPS6519)	—
BC 337	2N6016	—
BC 338	2N6012	—
BC 368	—	2SA683
BC 369	—	2SC1383
BC 413	2N3117 (MPS5655)	(2SC907)
BC 414	2N3117 (MPS6566; 2N3568)	(2SC907)
BC 415	2N3964 (2N2483)	(2SC648)
BC 416	2N3965 (2N2484)	—
BC 517	2N6426	—
BC 549	2N5962	—
BC 550	2N5961	—
BD 163	2N3054; 2N4232; 2N6261 (2N4910)	—
BD 165	2N4921	—
BD 169	2N4923	—
BD 175	2N5190	—
BD 176	2N5193	—
BD 177	2N5191	—
BD 178	2N5194	—

3.2 Equivalence des principaux transistors Europe, USA, Japon

Type Européen	Types équivalents USA	Japonais
BD 179	2N5192	—
BD 433	2N5190	—
BD 434	2N5193	—
BD 435	2N5190	—
BD 437	2N5190	—
BD 438	2N5193	—
BD 439	2N5191	—
BD 440	2N5194	—
BD 441	2N5192	—
BD 442	2N5195	—
BF 115	—	(2SC445)
BF 185	(40478)	(2SC535)
BF 194	—	(2SC460)
BF 195	—	(2SC535)
BF 196	—	(2SC682)
BF 257	2N3742; 2N5059	—
BF 258	2N3742; 2N5059	—
BF 259	2N3742; 2N5058	—
BF 457	2N5655	—
BF 458	2N5655	—
BF 459	2N5656	—

7/3.3

Tableau d'équivalence des principaux transistors USA - Europe

Type USA	Type équivalent Europe
2N392	AD 130; AD 149
2N526	AC 121; AC 152
2N677	AD 133
2N1359	AD 130; AD 149
2N1540	AD 149
2N1905	AL 103
2N2222	BC 223
2N2293	AL 103
2N2431	AC 153
2N3054	BD 163
2N3107	BC 141
2N3109	BC 140
2N3742	BF 257; BF 258; BF 259
2N3964	BC 415
2N3965	BC 416
2N4032	BC 161
2N4232	BD 163
2N4921	BD 165
2N4932	BD 169
2N5058	BF 259

Type USA	Type équivalent Europe
2N5059	BF 257; BF 258
2N5190	BD 175; BD 433; BD 435; BD 437
2N5191	BD 177; BD 439
2N5192	BD 179; BD 441
2N5193	BD 176; BD 434; BD 438
2N5194	BD 178; BD 440
2N5195	BD 442
2N5310	BC 167; BD 168
2N5324	AL 103
2N5367	BC 258
2N5655	BF 457; BF 458; BF 459
2N5879	AD 162
2N5888	AD 162
2N5893	AD 162
2N5962	BC 549
2N5999	BC 259
2N6012	BC 338
2N6016	BC 337
2N6261	BD 163
2N6426	BC 517

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Principaux transistors de la famille « 2 N »

Type	Polarisation	Boîtier	P _{tot} (m W)	Amplification en courant β	Tension maximale collecteur base au repos V _{CB0} : V	Courant de collecteur	Fréquence de coupure
1	2	3	4	5	6	7	8
1613	NPN	TO-39	3000	120	75	1000	>60
1671	—	TO-39	—	—	—	—	—
1711	NPN	TO-39	3000	300	75	1000	>70
1893	NPN	TO-39	5000	120	120	600	>50
2102	NPN	TO-39	5000	120	120	1000	>120
2160	—	TO-39	—	—	—	—	—
2218	NPN	TO-39	800	120	60	800	>250
2219	NPN	TO-39	800	300	60	800	>250
2220	NPN	TO-18	500	60	60	800	>250
2221	NPN	TO-18	500	120	60	800	250
2222	NPN	TO-18	500	300	60	800	250
2270	NPN	TO-39	5000	—	—	150	—
2368	NPN	TO-18	360	60	40	500	>400
2369	NPN	TO-18	360	120	40	—	500
2386	—	TO-5	—	—	—	—	—
2405	NPN	TO-39	5000	200	120	1000	>120
2484	NPN	TO-18	500	300	75	800	300
2646	—	TO-18	300	—	—	—	—
2647	—	TO-18	300	—	—	—	—
2894	PNP	TO-18	360	150	12	—	400
2904	PNP	TO-39	600	120	60	600	>200
2905	PNP	TO-39	600	300	60	600	>200
2906	PNP	TO-39	600	120	60	600	>200
2907	PNP	TO-39	600	300	60	600	>200

3.4 Principaux transistors
de la famille « 2 N »

3019	NPN	TO-39	800	300	140	1000	>100
3020	NPN	TO-39	5000	120	140	1000	>80
3053	NPN	TO-39	-	-	-	150	100
3054	NPN	-	-	-	-	500	-
3055	NPN/PNP	TO-3	117	70	-	-	1/4
3244	PNP	TO-39	-	-	40	500	-
3245	PNP	TO-39	-	-	40	500	-
3251	PNP	TO-18	-	-	50	50	-
3375	-	TO-60	11600	-	65	1500	500
3439	NPN	TO-39	10000	160	459	20	>15
3440	NPN	TO-39	10000	160	300	20	>15
3553	-	TO-39	-	-	-	-	175
3583	NPN	TO-66	35000	-	-	100	25
3584	NPN	TO-66	35000	-	-	100	25
3585	-	TO-66	35000	-	-	100	25
3632	-	TO-60	23000	-	65	3000	400
3700	NPN	TO-18	1800	300	140	1000	>100
3702	PNP	TO-92	-	-	40	50	-
3703	PNP	TO-92	-	-	50	50	-
3704	NPN	TO-92	-	-	50	100	-
3705	NPN	TO-92	-	-	50	100	-
3706	NPN	TO-92	-	-	40	100	-
3713	NPN	TO-3	150000	-	-	3000	-
3714	NPN	TO-3	150000	-	-	3000	-
3715	NPN	TO-3	150000	-	-	3000	-
3716	NPN	TO-3	150000	-	-	3000	-
3725	NPN	TO-39	-	-	-	800	-
3740	PNP	-	-	-	-	250	-
3741	PNP	-	-	-	-	250	-
3766	NPN	-	-	-	-	500	-
3771	NPN	TO-3	150	-	-	15000	-
3772	NPN	TO-3	150	-	-	10000	-
3773	NPN	TO-3	150	-	-	8000	-
3789	PNP	TO-3	150000	-	-	1000	-
3790	PNP	TO-3	150	-	-	1000	-
3791	PNP	TO-3	150	-	-	1000	-
3792	PNP	TO-3	150	-	-	1000	-
3819	-	SOT-54	360	-	-	-	-
3820	-	SOT-54	200	-	-	-	-
3821	-	TO-72	-	-	-	-	-
3822	-	TO-72	300	-	-	-	10 Hz
3823	-	TO-72	300	-	-	-	100
3866	-	TO-39	5000	-	55	400	700

3.4 Principaux transistors
de la famille « 2 N »

3902	NPN	TO-3	100000	—	—	—	—
3903	NPN	SOT-54	1000	150	60	200	>250
3904	NPN	SOT-54	1000	300	60	200	>300
3905	PNP	SOT-54	1000	150	40	200	>200
3906	PNP	SOT-54	1000	300	40	200	>250
3926	—	TO-60	11600	—	36	3000	>250
3927	—	TO-60	23000	—	36	4500	>200
3963	NPN	TO-18	360	450	80	200	>40
3964	NPN	TO-18	360	600	45	200	>50
3972	—	TO-18	—	—	—	—	—
3993	—	TO-72	—	—	—	—	—
3994	—	TO-72	—	—	—	—	—
4029	PNP	TO-18	2000	300	80	1000	>150
4031	PNP	TO-39	4000	120	80	1000	>100
4033	PNP	TO-39	4000	300	80	1000	>150
4035	PNP	TO-18	1000	300	40	100	>450
4036	PNP	TO-39	7000	140	90	1000	>60
4220	—	TO-72	300	—	—	—	—
4221	—	TO-72	300	—	—	—	—
4222	—	TO-72	300	—	—	—	—
4340	—	TO-18	300	—	—	—	0,001
4391	—	TO-18	1800	—	—	—	—
4392	—	TO-18	1800	—	—	—	—
4393	—	TO-18	1800	—	—	—	—
4398	PNP	TO-3	200000	—	—	15000	—
4399	PNP	TO-3	200000	—	—	15000	—
4406	PNP	TO-39	8750	100	80	2000	>150
4407	PNP	TO-39	8750	225	80	2000	>150
4416	—	TO-72	300	—	—	—	100
4427	—	TO-39	5000	—	40	400	700
4856	—	TO-18	360	—	—	—	—
4857	—	TO-18	360	—	—	—	—
4858	—	TO-18	360	—	—	—	—
4859	—	TO-18	—	—	—	—	—
4860	—	TO-18	—	—	—	—	—
4861	—	TO-18	—	—	—	—	—
4870	—	TO-92	300	—	—	—	—
4901	PNP	TO-3	87500	—	—	1000	—
4902	PNP	TO-3	87500	—	—	1000	—
4903	PNP	TO-3	87500	—	—	2500	—
4904	PNP	TO-3	87500	—	—	2500	—
4905	PNP	TO-3	87500	—	—	2500	—
4906	PNP	TO-3	87500	—	—	2500	—

3.4 Principaux transistors
de la famille « 2 N »

4913	NPN	TO-3	87500	—	—	2500	—
4914	NPN	TO-3	87500	—	—	2500	—
4915	NPN	TO-3	87500	—	—	2500	—
5037	NPN	TO-3	140000	—	—	12000	—
5038	NPN	TO-3	140000	—	—	10000	—
5045	—	TO-71	—	—	—	—	—
5046	—	TO-71	—	—	—	—	—
5047	—	TO-71	—	—	—	—	—
5067	NPN	TO-3	87500	—	—	1000	—
5068	NPN	TO-3	87500	—	—	1000	—
5069	NPN	TO-3	87500	—	—	1000	—
5116	—	TO-18	500	—	—	—	—
5157	NPN	TO-3	100000	—	—	1000	—
5190	NPN	—	—	—	—	1500	—
5241	NPN	TO-3	125000	—	—	2500	—
5295	NPN	TO-220AA	36000	—	—	1000	1
5301	NPN	TO-3	200000	—	—	15000	—
5302	NPN	TO-3	200000	—	—	15000	—
5303	NPN	TO-3	200000	—	—	10000	—
5400	PNP	SOT-54	1000	180	130	600	>100
5401	PNP	SOT-54	1000	240	160	600	>100
5415	PNP	TO-39	10000	150	200	1000	>15
5416	PNP	TO-39	10000	120	350	1000	>15
5460	—	SOT-54	310	—	—	—	100 Hz
5461	—	SOT-54	310	—	—	—	100 Hz
5462	—	SOT-54	310	—	—	—	100 Hz
5545	—	TO-71	—	—	—	—	—
5546	—	TO-71	—	—	—	—	—
5547	—	TO-71	—	—	—	—	—
5551	NPN	SOT-54	1000	250	180	600	>100
5671	NPN	TO-3	140000	—	—	15000	—
5672	NPN	TO-3	140000	—	—	15000	—
5683	PNP	TO-3	300000	—	—	25000	—
5684	PNP	TO-3	300000	—	—	25000	—
5685	NPN	TO-3	300000	—	—	25000	—
5696	NPN	TO-3	300000	—	—	25000	—
5758	NPN	TO-3	150000	—	—	3000	—
5759	NPN	TO-3	150000	—	—	3000	—
5760	NPN	TO-3	150000	—	—	3000	—
5867	PNP	TO-3	87500	—	—	1500	—
5868	PNP	TO-3	87500	—	—	1500	—
5869	NPN	TO-3	87500	—	—	1500	—
5870	NPN	TO-3	87500	—	—	1500	—

3.4 Principaux transistors
de la famille « 2 N »

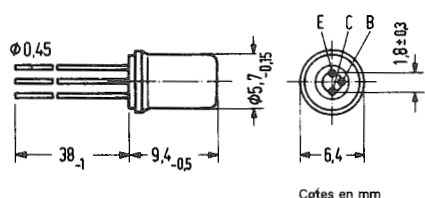
5871	PNP	TO-3	115000	—	—	2500	—
5872	PNP	TO-3	115000	—	—	2500	—
5873	NPN	TO-3	115000	—	—	2500	—
5874	NPN	TO-3	115000	—	—	2500	—
5875	PNP	TO-3	150000	—	—	4000	—
5876	PNP	TO-3	150000	—	—	4000	—
5877	NPN	TO-3	150000	—	—	4000	—
5878	NPN	TO-3	150000	—	—	4000	—
5879	PNP	TO-3	160000	—	—	6000	—
5880	PNP	TO-3	160000	—	—	6000	—
5881	NPN	TO-3	160000	—	—	6000	—
5882	NPN	TO-3	160000	—	—	6000	—
5883	PNP	TO-3	200000	—	—	10000	—
5884	PNP	TO-3	200000	—	—	10000	—
5885	NPN	TO-3	200000	—	—	10000	—
5886	NPN	TO-3	200000	—	—	10000	—
5954	PNP	TO-66	40000	—	—	—2 A	10
6027	—	TO-92	375	—	—	2000	—
6028	—	TO-92	375	—	—	2000	—
6292	NPN	TO-220AB	40000	—	—	2000	4
6326	NPN	TO-3	200000	—	—	15000	—
6327	NPN	TO-3	200000	—	—	15000	—
6328	NPN	TO-3	200000	—	—	15000	—
6329	PNP	TO-3	200000	—	—	15000	—
6330	PNP	TO-3	200000	—	—	15000	—
6331	PNP	TO-3	200000	—	—	15000	—
6449	—	TO-39	—	—	—	—	—
6450	—	TO-39	—	—	—	—	—
6619	NPN	TO-236	200	>25	20	30	5000
6620	NPN	TO-119	200	>25	20	30	5000
6621	NPN	TO-119	200	150	25	25	1900

7/3.5

Description des principaux boîtiers de transistors

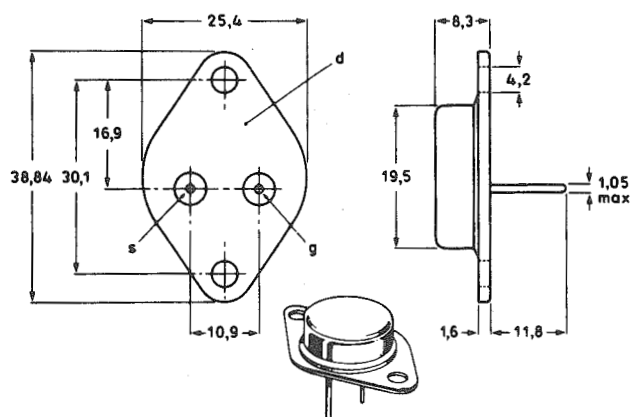
Formes et dimensions des boîtiers « TO... »

TO 1

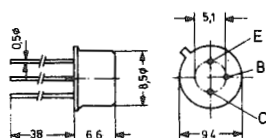


Cotes en mm

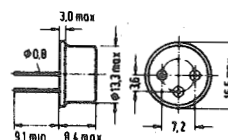
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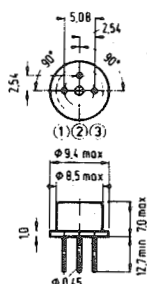
TO 5



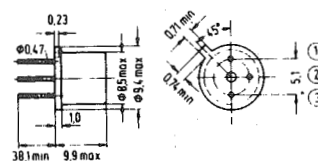
TO 8



TO 9

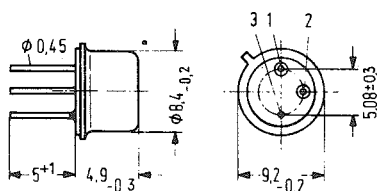


TO 11

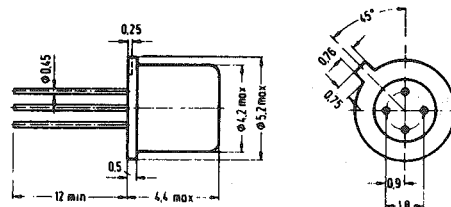


3.5 Description des principaux
boîtiers de transistors
Formes et dimensions
des boîtiers « T.O... »

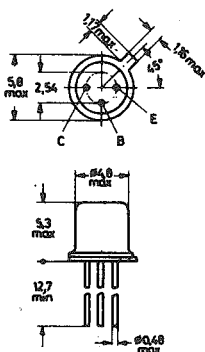
TO 12



TO 17

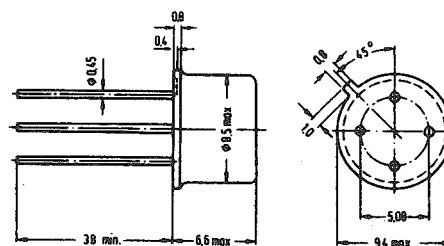


TO 18

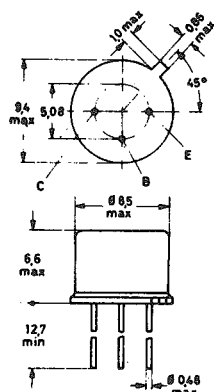


Le collecteur
est relié
au boîtier
métallique

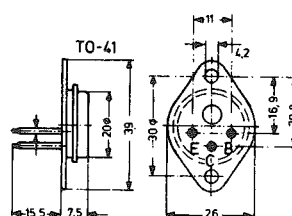
TO 33



TO 39



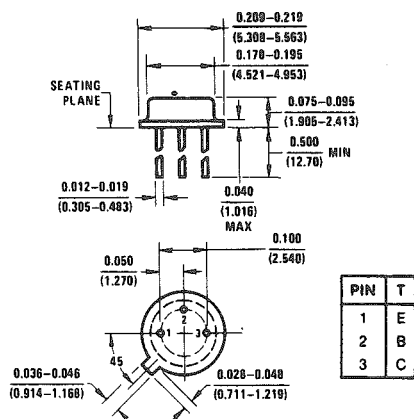
TO 41



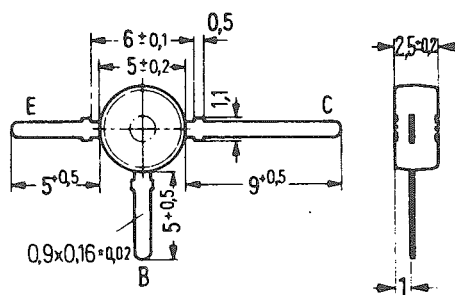
3.5 Description des principaux boîtiers de transistors

Formes et dimensions des boîtiers « T.O... »

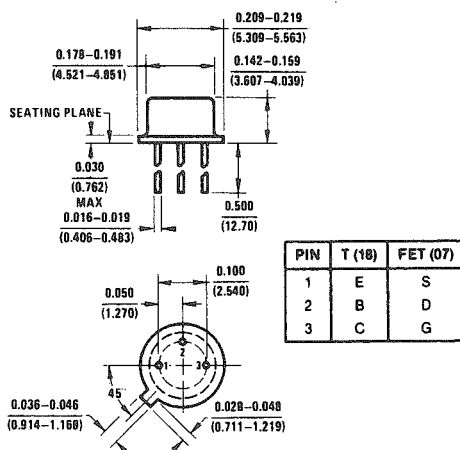
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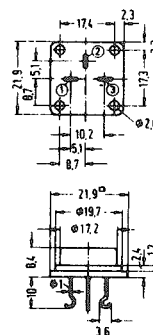
TO 50



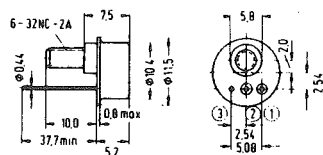
TO 52



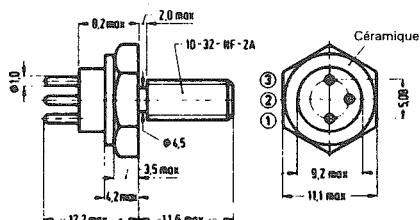
TO 53



TO 57



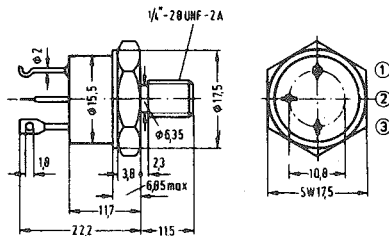
TO 60



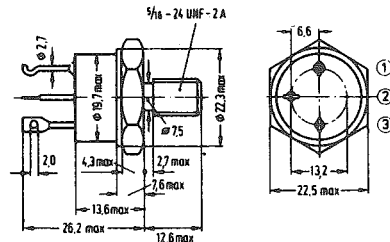
3.5 Description des principaux boîtiers de transistors

Formes et dimensions des boîtiers « T.O... »

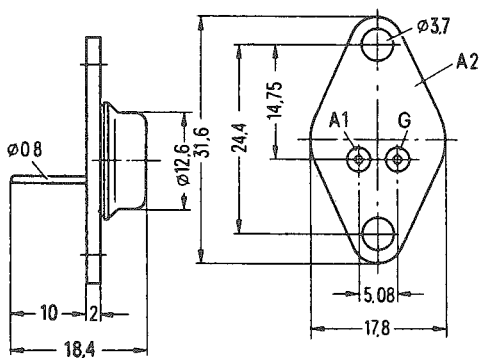
TO 61



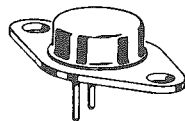
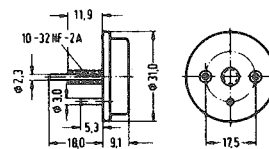
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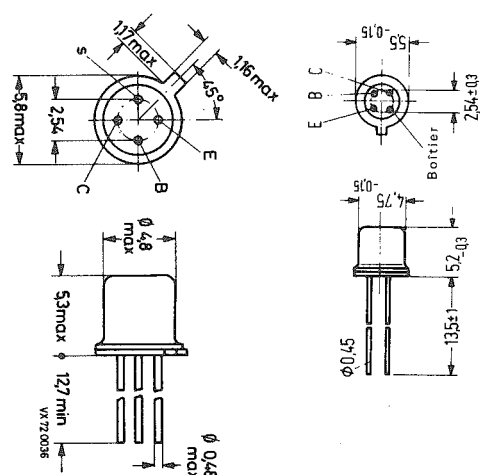
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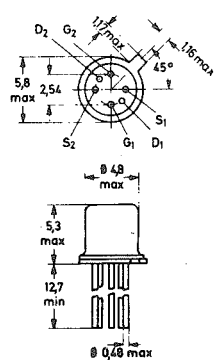
TO 68



TO 72

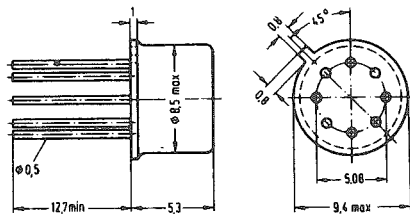


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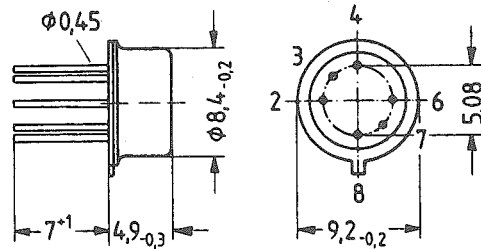


3.5 Description des principaux
boîtiers de transistors
Formes et dimensions
des boîtiers « T.O... »

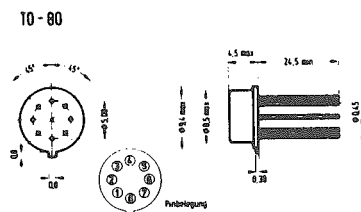
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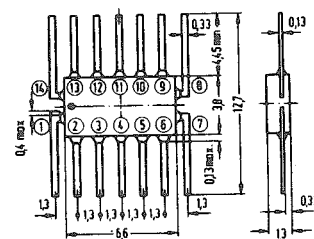
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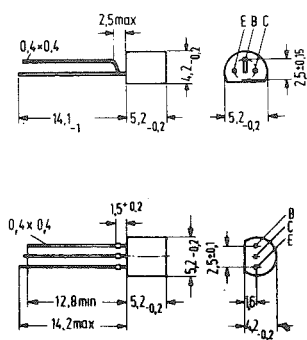
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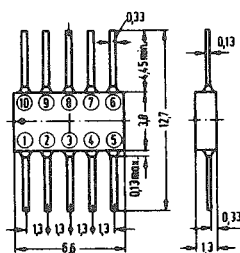
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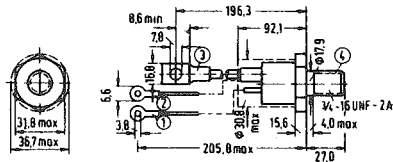
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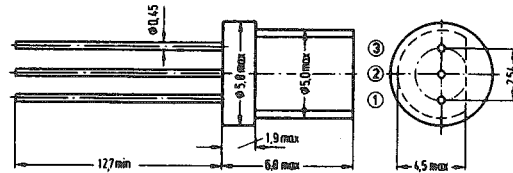
3.5 Description des principaux boîtiers de transistors

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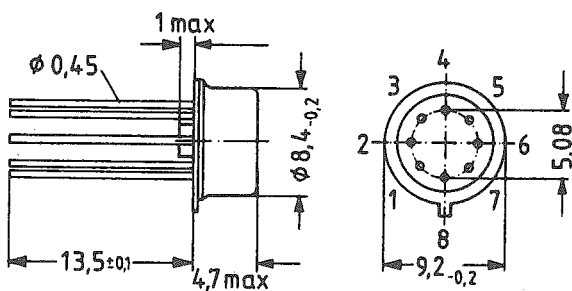
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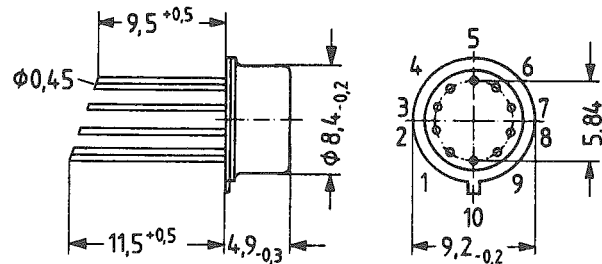
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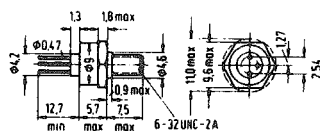
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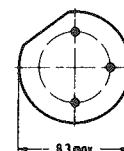
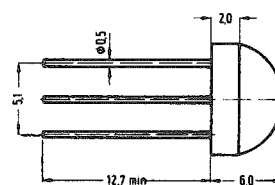
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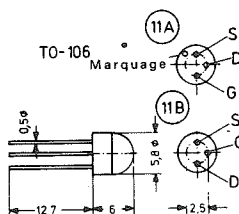
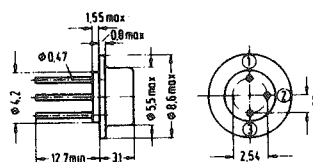
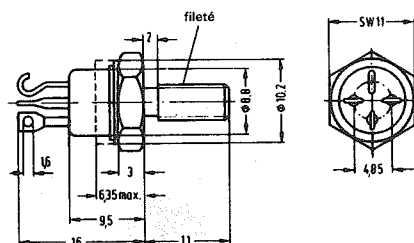
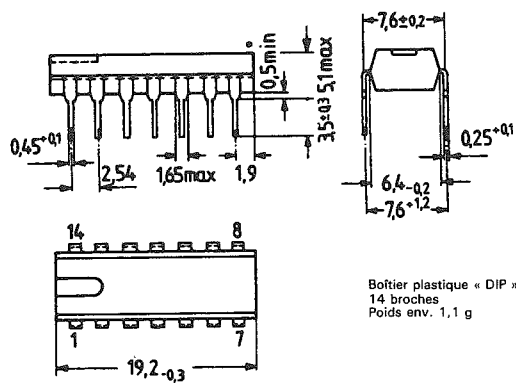
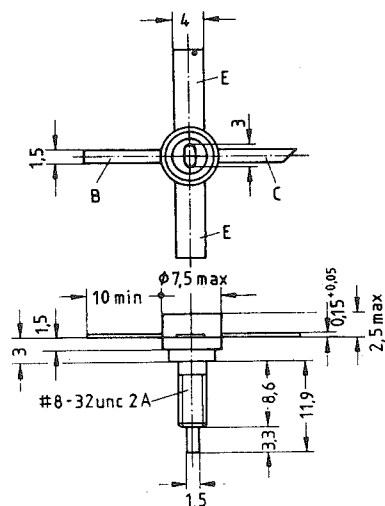
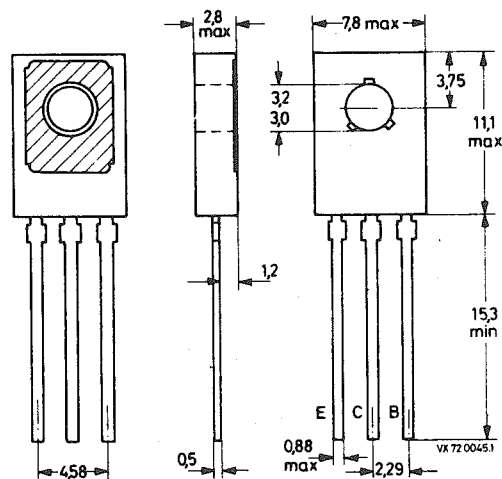
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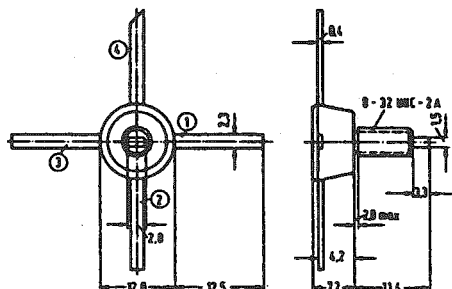


**3.5 Description des principaux
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des boîtiers « T.O... »**

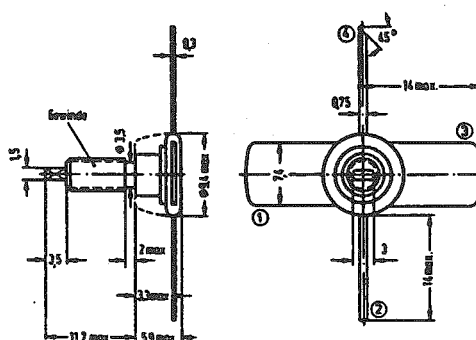
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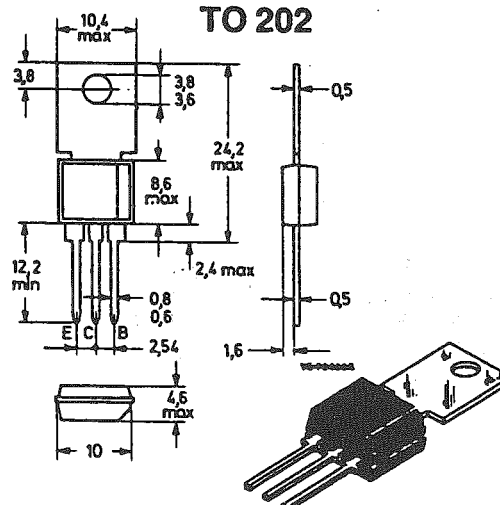
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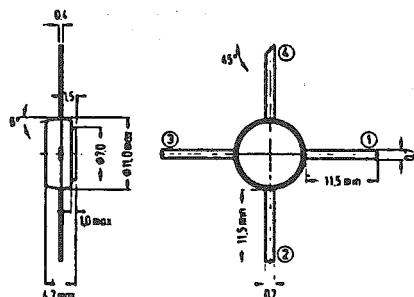
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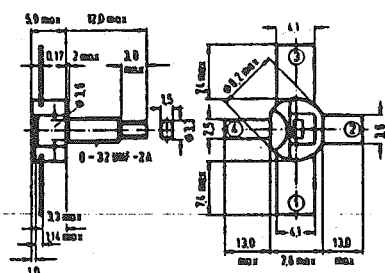
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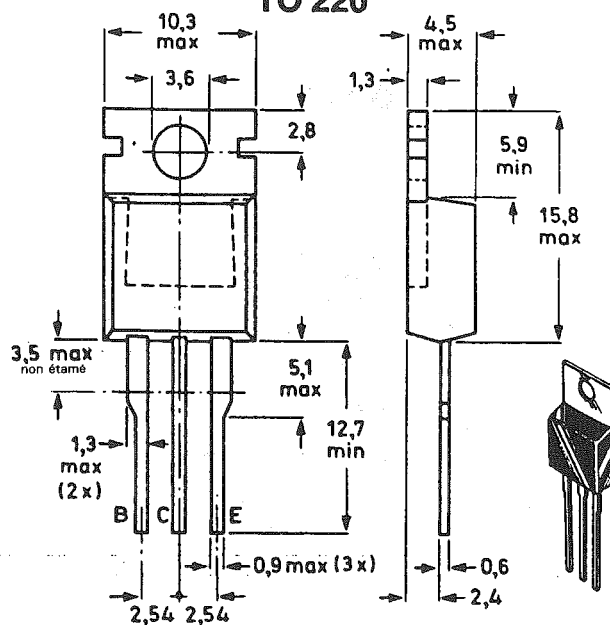
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7/4

Thyristors et triacs

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