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

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

i_c = 1 A max. P_T = 5 W max. (TO-39) *	i_c = −1 A max. P_T = 7 W max. (TO-39) *	i_c = 2 A max. P_T = 10 W max. (TO-39) *	i_c = −2 A max. P_T = 10 W max. (TO-39) *	i_c = 2 A max. P_T = 25 W max. (Plastic TO-5)	i_c = −2 A max. P_T = 25 W max. (Plastic TO-5)	i_c = 7 A max. P_T = 35 W max. (TO-66) * *	i_c = 15 A max. P_T = 85 - 117 W max. (Radial)	i_c = 20 A max. P_T = 140 W max. (TO-3)	i_c = 20 A max. P_T = 175W max. (TO-3)	i_c = 25 A max. P_T = 80–125 W max. (TO-63)	i_c = 30 A max. P_T = 140 W max. (TO-3)	i_c = 50 A max. P_T = 140 W max. (Modified TO-3)
30 x 30▲	30 x 30	42 x 42	42 x 42	42 x 42	42 x 42	103 x 103	155 x 155	180 x 180	146 x 183	215 x 222	220 x 220	220 x 220 [2 CHIPS]
Family Designation												
2N2102 [N-P-N]	**2N4036** [P-N-P]	**2N5320** [N-P-N]	**2N5322** [P-N-P]	**2N6178** [N-P-N]	**2N6180** [P-N-P]	**2N3879** [N-P-N]	**2N6482** [N-P-N]	**2N6354** **2N5038** [N-P-N]	**41012** [N-P-N]	**2N3263** [N-P-N]	**2N5672** [N-P-N]	**2N6033** [N-P-N]
2N3053 $V_{CER}(SUS)$ = 50 V h_{FE} = 50-250 @ 150 mA = 100 MHz min. CT File No. 432E	**2N4037** $V_{CER}(SUS)$ = −60 V h_{FE} = 50-250 @ −150 mA f_T = 60 MHz min. CT File No. 216E	**2N5321** $V_{CER}(SUS)$ = 65 V h_{FE} = 40-250 @ 500 mA f_T = 50 MHz min. t_{on} = 80 ns max. t_{off} = 800 ns max. CT File No. 325E	**2N5323** $V_{CER}(SUS)$ = −65 V h_{FE} = 40-250 @ −500 mA f_T = 50 MHz min. CT File No. 325E	**2N6179** "Plastic 2N5321" $V_{CER}(SUS)$ = 65 V h_{FE} = 40-250 @ 500 mA f_T = 50 MHz min. t_{on} = 80 ns max. t_{off} = 800 ns max. CT File No. 562	**2N6181** "Plastic 2N5323" $V_{CER}(SUS)$ = −65 V h_{FE} = 40-250 @ −500 mA f_T = 50 MHz min. CT File No. 562	**2N3878‡** $V_{CER}(SUS)$ = 60 V h_{FE} = 20 min. @ 4 A h_{FE} = 50-200 @ 0.5 A f_T = 60 MHz min. t_r = 400 ns max. t_f = 400 ns max. File No. 766	**2N6479** (Isolated Collector) **2N6481** (Non Isolated Coll.) $V_{CER}(sus)$=80V h_{FE} = 20 min. @ 12 A f_T = 100 MHz typ. Radiation Hard File No. 702	**2N5039** $V_{CER}(SUS)$ = 95 V h_{FE} = 20 min. @ 10 A h_{FE} = 30- 250 @ 2 A f_T 60 MHz min. t_{on} = 0.5 μs max. t_{off} = 2 μs max. File No. 698	**41012** P_T = 175 W I_c = 30A peak $V_{CEO}(sus)$ = 80 V h_{FE} =20-60 @ 10 A File No. 660	**2N3266** **2N3264**■ $V_{CER}(SUS)$ = 80 V h_{FE} = 20-80 @ 15 A f_T 20 MHz min. t_{on} = 0.5 μs max. t_{off} = 2 μs max. File No. 54	**2N5671** $V_{CER}(SUS)$ = 110 V h_{FE} = 20 min. @ 20 A h_{FE} = 20-100 @ 15 A f_T 50 MHz min. t_{on} = 0.5 μs max. t_{off} = 2 μs max. File No. 383	**2N6032** $V_{CER}(SUS)$ = 110 V h_{FE} = 10-50 @ 50 A f_T = 50 MHz min. t_r = 1 μs max. t_f = 0.5 μs max. File No. 462
2N2102 $V_{CER}(SUS)$ = 80 V h_{FE} = 40-120 @ 150 mA f_T = 120 MHz min. CT 106E	**2N4036** $V_{CER}(SUS)$ = −85 V h_{FE} = 40-140 @ 150 mA f_T = 60 MHz min. CT 216E	**2N5320** $V_{CER}(SUS)$ = 90 V h_{FE} = 30-130 @500 mA f_T = 50 MHz min. t_{on} = 80 ns max. t_{off} = 800 ns max. CT 325E	**2N5322** $V_{CER}(SUS)$ = −90 V h_{FE} = 30-130 @-500 mA h_{FE} = 10 min. @ −1 A f_T = 50 MHz min. CT 325E	**2N6178** "Plastic 2N5320" $V_{CER}(SUS)$ = 90 V h_{FE} = 30-130 @ 500 mA f_T = 50 MHz min. t_{on} = 80 ns max. t_{off} = 800 ns max. CT 562	**2N6180** "Plastic 2N5322" $V_{CER}(SUS)$ = −90V h_{FE} = 30-130 @ −500 mA h_{FE} = 10 min. @ −1 A f_T = 50 MHz min. CT 562	**2N3879** $V_{CER}(SUS)$ = 90 V h_{FE} = 40 min. @ 0. 5A h_{FE} = 20-80 @ 4 A f_T = 60 MHz min. t_r = 400 ns max. t_f = 400 ns max. 766	**2N6480** (Isolated Collector) **2N6482** (Non Isolated Coll.) $V_{CER}(sus)$ = 80V h_{FE} = 20 min. @ 12A f_T = 100 MHz typ. Radiation Hard 702	**2N5038** $V_{CER}(SUS)$ = 110 V h_{FE} = 20 min. @ 12 A h_{FE} = 50 250 @ 2 A f_T = 60 MHz min. t_{on} = 0.5 μs max. t_{off} = 2 μs max. 698	**41013** P_T = 175 W I_c = 30A peak $V_{CEO}(sus)$ = 125 V h_{FE} = 20-60 @ 10A 660	**2N3265** **2N3263**■ $V_{CER}(SUS)$ = 110 V h_{FE} = 25-75 @ 15 A f_T = 20 MHz min. t_{on} = 0.5 μs max. t_{off} = 2 μs max. 54	**2N5672** $V_{CER}(SUS)$ = 140 V h_{FE} = 20 min. @ 20 A h_{FE} = 20-100 @ 15 A f_T = 50 MHz min. t_{on} = 0.5 μs max. t_{off} = 2 μs max. 383	**2N6033** $V_{CER}(SUS)$ = 140 V h_{FE} = 10-50 @ 40 A f_T = 50 MHz min. t_r = 1 μs max. t_f = 0.5 μs max. 462
	2N4314 $V_{CER}(SUS)$ = −85 V h_{FE} = 50-250 @ −150 mA f_T = 60 MHz min. 216E					**2N5202** $V_{CER}(SUS)$ = 75 V h_{FE} = 10-100 @ 4 A f_T = 60 MHz min. t_r = 400 ns max. t_f = 400 ns max. 766		**2N6354** $V_{CER}(sus)$ = 130 V h_{FE} = 20-150 @ 5 A h_{FE} = 10-100 @ 10 A f_T = 80 MHz min. t_r = 0.3 μs max. t_f = 0.2 μs max. I_c = 12 A peak 582				
						2N6500 $V_{CER}(SUS)$ = 110 V h_{FE} =15 -60 @ 3A f_T = 60 MHz min. t_r = 400 ns max. t_f = 500 ns max. 766		**2N6496** $V_{CER}(sus)$ =130V h_{FE} =12 - 100 @ 8A f_T = 50 MHz min. t_r = 0.5 us max. t_f = 0.5 us max. I_c = 30A peak 698				

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

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

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

‡Also available with heat radiator (40375).

■Flat radial lead version.

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

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

COMPLEMENTARY-PAIR POWER TYPES

Hometaxial-Base/Epitaxial-Base

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

* Or higher voltage type 2N6248.

High-Voltage

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

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

High-Speed

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

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

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

PLASTIC-PACKAGED POWER TYPES

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

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

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

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

f_T = 50 MHz min; P_T = 25 W max

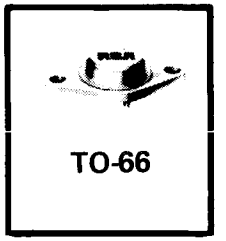
DESCRIPTION	$V_{CEO(sus)}$ V	$V_{CER(sus)}$ V	$V_{CEV(sus)}$ V	h_{FE}	I_C A	V_{CE} V	I_{CEV}–mA Temp.–°C 25	150	V_{CE} V	$V_{CE(sat)}$–V I_C A	I_B A	V_{BE}–V I_C A
2N TYPES												
2N6181 PNP Complement of 2N6179	-50	-65	-75	40-250	-0.5	-4	-1●	–	-45	-1.2	-0.5	-0.05	-1.5	-0.5
2N6180 PNP Complement of 2N6178	-75	-90	-100	30-130	-0.5	-4	-1●	–	-60	-0.7	-0.5	-0.05	-1.2	-0.5

●I_{CEO}

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

f_T = 20 MHz min; P_T = 35 W max

2N & PRO-ELECTRON TYPES														
2N6211 High-Breakdown Voltage, Fast Switch	-225	-250	-275▲	10-100	-1	-2.8	-0.5	-5●	-250	-1.4	-1	-0.125	-1.4	-1
2N6212 High-Breakdown Voltage, Fast Switch	-300	-325	-350▲	10-100	-1	-3.2	-0.5	-5●	-315	-1.6	-1	-0.125	-1.4	-1
2N6213 High-Breakdown Voltage, Fast Switch	-350	-375	-400▲	10-100	-1	-4	-0.5	-5●	-360	-2	-1	-0.125	-1.4	-1
2N6214 High-Breakdown Voltage, Fast Switch	-400	-425	-450▲	10-100	-1	-5	-1	-10●	-410	-2.5	-1	-0.125	-1.4	-1
BUX66 High-Breakdown Voltage, Fast Switch	-150	-175	–	10-150	-1	-5	-8	-10●	-200	-1.5	-1	-0.15	-2.5	-1
BUX66A High-Breakdown Voltage, Fast Switch	-250	-275	–	10-150	-1	-5	-8	-10●	-300	-1.5	-1	-0.15	-2.5	-1
BUX66B High-Breakdown Voltage, Fast Switch	-300	-325	–	10-150	-1	-5	-8	-10●	-350	-1.5	-1	-0.15	-2.5	-1
BUX66C High-Breakdown Voltage, Fast Switch	-350	-375	–	10-150	-1	-5	-8	-10●	-400	-1.5	-1	-0.15	-2.5	-1



AUDIO TYPES														
40992 Class B Predriver, 200-W Amplifier	-175	-200	–	30-150	-0.3	-2	-0.1*	–	-120	–	–	–	-1	-0.3

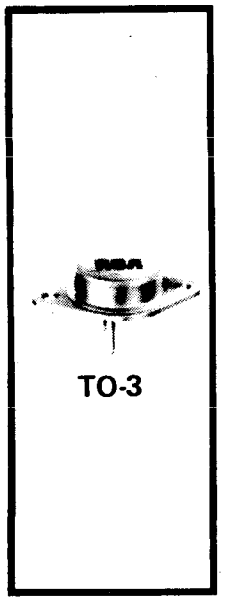
▲$V_{CEX(sus)}$ ●I_{CEV}@ 100°C * I_{CER}

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

f_T = 10 MHz min; P_T = 125 W max

2N & PRO-ELECTRON TYPES														
2N6469 Epitaxial - Base, General Purpose	-40	-45	50▲	20-150	-5	-4	-0.2●	-5●	-45	-1.3	-5	-0.5	-3.5	-15
2N6246 Epitaxial-Base; General Purpose	-60	-65	-70▲	20-100	-7	-4	-0.2●	-5■	-65	-1.3	-7	-0.7	-1.6	-7
2N6247 Epitaxial-Base, General Purpose	-80	-85	-90▲	20-100	6	-4	-0.2●	-5*	-80	-1.3	-6	-0.6	-1.6	-6
2N6248 Epitaxial-Base, General Purpose	-100	-105	-110▲	20-100	-5	-4	-0.2●	-5†	-100	-1.3	-5	-0.5	-2	-5
BDX 18 Epitaxial - Base, General Purpose	—	-70	-100▲	20-70	-4	-4	-5●	–	-100	-1.1	-4	-0.4	-1.8	-4
BDX 18 N Epitaxial - Base, General Purpose	-60	—	-100▲	20-70	-4	-4	-5●	–	-100	-1.1	-4	-0.4	-1.8	-4

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



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

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

2N & PRO-ELECTRON TYPES														
BUX17 High Voltage	150	175	—	20 min.	4	3	10	20■	250	2	10	2	4	10
BUX17A High Voltage	250	275	—	20 min.	4	3	10	20■	350	2	10	2	4	10
BUX17B High Voltage	300	325	—	15 min.	4	3	5	10■	400	2	8	1.5	3.5	8
BUX17C High voltage	350	375	—	15 min.	4	3	5	10■	450	2	8	1.5	3.5	8
2N6249 High-Voltage Switch	200	225	225▲	10-50	10	3	5	10■	225	1.5	10	1	2.25	10
2N6250 High-Voltage Switch	275	300	300▲	8-50	10	3	5	10■	300	1.5	10	1.25	2.25	10
2N6251 High-Voltage Switch	350	375	375▲	6-50	10	3	5	10■	375	1.5	10	1.67	2.25	10

OTHER TYPES														
40854 Off-Line Switching-Regulator for Power Supplies	300	325	–	8 min.	10	4	1	10■	450	3	16	3.2	3	16

▲$V_{CEX(sus)}$ ■I_{CEV}@ 125°C