

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

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

I _C = -3.5 max. P _T = 10 W max. (TO-39)	I _C = 6 A max. P _T = 40 W max. (TO-66)**	I _C = -6 A max. P _T = 40 W max. (TO-66)**	I _C = 7 A max. P _T = 40 W max. VERSAWATT (TO-220)	I _C = -7 A max. P _T = 40 W max. VERSAWATT (TO-220)	I _C = 15 A max. P _T = 125 W max. (TO-3)	I _C = -15 A max. P _T = 125 W max. (TO-3)	I _C = 15 A max. P _T = 75 W max. VERSAWATT (TO-220)	I _C = -15 A max. P _T = 75 W max. VERSAWATT (TO-220)
90 x 90 ^A	90 x 90	90 x 90	90 x 90	90 x 90	150 x 150	150 x 150	150 x 150	150 x 150
Family Designation								
2N5781 [P-N-P]	2N6372 [N-P-N]	2N5954 [P-N-P]	2N6292 [N-P-N]	2N6107 [P-N-P]	2N6472 [N-P-N]	2N6248 [P-N-P]	2N6488 [N-P-N]	2N6491 [P-N-P]
2N5783 V _{CE} (SUS) = -45 V h _{FE} = 20-100 @ -1.6 A f _T = 8 MHz min. CT File No. 413E	2N6374 V _{CE} (SUS) = 45 V h _{FE} = 20-100 @ 3 A f _T = 4 MHz min.	2N5956 V _{CE} (SUS) = -45 V h _{FE} = 20-100 @ -3 A f _T = 5 MHz min.	2N6288 2N6289 V _{CE} (SUS) = 40 V h _{FE} = 30-150 @ 3 A f _T = 4 MHz min.	2N6110 2N6111 V _{CE} (SUS) = -40 V h _{FE} = 30-150 @ -3 A f _T = 10 MHz min.	2N6470 V _{CE} (SUS) = 43V h _{FE} = 20-150 @ 5 A f _T = 5 MHz typ.	2N6469 V _{CE} (SUS) = -45V h _{FE} = 20-150 @ -5 A f _T = 6 MHz min.	2N6486 V _{CE} (SUS) = 50V h _{FE} = 20-150 @ 5 A f _T = 5 MHz typ.	2N6489 V _{CE} (SUS) = -50V h _{FE} = 20-150 @ -5 A f _T = 5 MHz typ.
2N5782 V _{CE} (SUS) = -65 V h _{FE} = 20-100 @ -1.2 A f _T = 8 MHz min. CT 413E	2N6373 V _{CE} (SUS) = 65 V h _{FE} = 20-100 @ 2.5 A f _T = 4 MHz min.	2N5955 V _{CE} (SUS) = -65 V h _{FE} = 20-100 @ -2.5 A f _T = 5 MHz min.	2N6290 2N6291 V _{CE} (SUS) = 60 V h _{FE} = 30-150 @ 2.5 A f _T = 4 MHz min.	2N6108 2N6109 V _{CE} (SUS) = -60 V h _{FE} = 30-150 @ -2.5 A f _T = 10 MHz min.	2N6471 V _{CE} (SUS) = 65V h _{FE} = 20-150 @ 5 A f _T = 5 MHz typ.	2N6246 V _{CE} (SUS) = -65 V h _{FE} = 20-150 @ -5 A f _T = 6 MHz min.	2N6487 V _{CE} (SUS) = 70V h _{FE} = 20-150 @ 5 A f _T = 5 MHz typ.	2N6490 V _{CE} (SUS) = -70V h _{FE} = 20-150 @ -5 A f _T = 5 MHz typ.
2N5781 V _{CE} (SUS) = -80 V h _{FE} = 20-100 @ -1 A f _T = 8 MHz min. CT 413E	2N6372 V _{CE} (SUS) = 85 V h _{FE} = 20-100 @ 2 A f _T = 4 MHz min.	2N5954 V _{CE} (SUS) = -85 V h _{FE} = 20-100 @ -2 A f _T = 5 MHz min.	2N6292 2N6293 V _{CE} (SUS) = 80 V h _{FE} = 30-150 @ 2 A f _T = 4 MHz min.	2N6106 2N6107 V _{CE} (SUS) = -80 V h _{FE} = 30-150 @ -2 A f _T = 10 MHz min.	2N6472 V _{CE} (SUS) = 85V h _{FE} = 20-150 @ 5 A f _T = 5 MHz typ.	2N6247 V _{CE} (SUS) = -85 V h _{FE} = 20-150 @ 5 A f _T = 6 MHz min.	2N6488 V _{CE} (SUS) = 90V h _{FE} = 20-150 @ 5 A f _T = 5 MHz typ.	2N6491 V _{CE} (SUS) = -90V h _{FE} = 20-150 @ -5 A f _T = 5 MHz typ.
			2N6473 V _{CE} (SUS) = 110V h _{FE} = 30-150 @ 1.5 A f _T = 5 MHz typ. 676	2N6475 V _{CE} (SUS) = 110V h _{FE} = 30-150 @ -1.5 A f _T = 5 MHz typ. 676		2N6248 V _{CE} (SUS) = -105 V h _{FE} = 20-100 @ -5 A f _T = 6 MHz min. CT 677		
			2N6474 V _{CE} (SUS) = 130V h _{FE} = 30-150 @ 1 A f _T = 5 MHz typ. 676	2N6476 V _{CE} (SUS) = 130V h _{FE} = 30-150 @ -1 A f _T = 5 MHz typ. 676				

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

**Available with free-air radiator R_{θJA} = 30° C/W

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

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

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

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 ^A	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.	2N6181 "Plastic 2N5323" $V_{CEr(SUS)} = -65$ V $h_{FE} = 40-250$ @ -500 mA $f_T = 50$ MHz min.	2N6175 "Plastic 2N3440" $V_{CEr(SUS)} = 300$ V $h_{FE} = 30-190$ @ 20 mA $f_T = 20$ MHz min.	2N6288 2N6289 $V_{CEr(SUS)} = 40$ V $h_{FE} = 30-150$ @ 3 A $f_T = 4$ MHz min.	2N6110 2N6111 $V_{CEr(SUS)} = -40$ V $h_{FE} = 30-150$ @ -3 A $f_T = 10$ MHz min.	2N6486 $V_{CEr(SUS)} = 45$ V $h_{FE} = 20-150$ @ 5 A $f_T = 5$ MHz typ.	2N6489 $V_{CEr(SUS)} = -45$ V $h_{FE} = 20-150$ @ 5 A $f_T = 5$ MHz typ.	2N5295 2N5296 $V_{CEr(SUS)} = 50$ V $h_{FE} = 30-120$ @ 1 A $f_T = 0.8$ MHz min.	2N6478 $V_{CEr(SUS)} = 135$ V $h_{FE} = 20-80$ $f_T = 1.2$ MHz typ. $I_C = 3$ A max.	2N5491 2N5490 $V_{CEr(SUS)} = 50$ V $h_{FE} = 20-100$ @ 2 A $f_T = 0.8$ MHz min.	2N6102 2N6103 $V_{CEr(SUS)} = 45$ V $h_{FE} = 15-60$ @ 8 A $f_T = 0.9$ MHz min. $I_C = 16$ A max.
CT File No. 562	CT File No. 562	CT File No. 508	File No. 676	CT File No. 676	File No. 678	File No. 678	CT File No. 322	File No. 680	CT File No. 353	File No. 485
2N6178 "Plastic 2N5320" $V_{CEr(SUS)} = 90$ V $h_{FE} = 30-130$ @ 500 mA $f_T = 50$ MHz min.	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.	2N6176 $V_{CEr(SUS)} = 350$ V $h_{FE} = 30-150$ @ 20 mA $f_T = 20$ MHz min.	2N6290 2N6291 $V_{CEr(SUS)} = 60$ V $h_{FE} = 30-150$ @ 2.5 A $f_T = 4$ MHz min.	2N6108 2N6109 $V_{CEr(SUS)} = -60$ V $h_{FE} = 30-150$ @ -2.5 A $f_T = 10$ MHz min.	2N6487 $V_{CEr(SUS)} = 65$ V $h_{FE} = 20-150$ @ 5 A $f_T = 5$ MHz typ.	2N6490 $V_{CEr(SUS)} = -65$ V $h_{FE} = 20-150$ @ 5 A $f_T = 5$ MHz typ.	2N5297 2N5298 $V_{CEr(SUS)} = 70$ V $h_{FE} = 20-80$ @ 1.5 A $f_T = 0.8$ MHz min.	2N6478A $V_{CEr(SUS)} = 150$ V $h_{FE} = 30-120$ @ 0.5 A $f_T = 1.2$ MHz typ. $I_C = 3$ A max.	2N5495 2N5494 $V_{CEr(SUS)} = 50$ V $h_{FE} = 20-100$ @ 3 A $f_T = 0.8$ MHz min.	2N6098 2N6099 $V_{CEr(SUS)} = 65$ V $h_{FE} = 20-80$ @ 4 A $f_T = 0.8$ MHz min. $I_C = 10$ A max.
CT 562	CT 562	CT 508E	676	CT 676	678	678	CT 322	680	CT 353	485
		2N6177 "Plastic 2N3439" $V_{CEr(SUS)} = 400$ V $h_{FE} = 40-160$ @ 20 mA $f_T = 15$ MHz min.	2N6292 2N6293 $V_{CEr(SUS)} = 80$ V $h_{FE} = 30-150$ @ 2 A $f_T = 4$ MHz min.	2N6106 2N6107 $V_{CEr(SUS)} = -80$ V $h_{FE} = 30-150$ @ -2 A $f_T = 10$ MHz min.	2N6488 $V_{CEr(SUS)} = 85$ V $h_{FE} = 20-150$ @ 5 A $f_T = 5$ MHz typ.	2N6491 $V_{CEr(SUS)} = -85$ V $h_{FE} = 20-150$ @ 5 A $f_T = 5$ MHz typ.	2N5293 2N5294 $V_{CEr(SUS)} = 75$ V $h_{FE} = 30-120$ @ 0.5 A $f_T = 0.8$ MHz min.		2N5493 2N5492 $V_{CEr(SUS)} = 65$ V $h_{FE} = 20-100$ @ 2.5 A $f_T = 0.8$ MHz min.	2N6100 2N6101 $V_{CEr(SUS)} = 75$ V $h_{FE} = 20-80$ @ 5 A $f_T = 0.8$ MHz min. $I_C = 10$ A max.
		508E	676	CT 676	678	678	CT 322		CT 353	485
			2N6473 $V_{CEr(SUS)} = 110$ V $h_{FE} = 15-150$ @ 1.5 A $f_T = 5$ MHz typ $I_C = 4$ A max	2N6475 $V_{CEr(SUS)} = -110$ V $h_{FE} = 15-150$ @ -1.5 A $f_T = 5$ MHz typ $I_C = -4$ A max					2N5497 2N5496 $V_{CEr(SUS)} = 80$ V $h_{FE} = 20-100$ @ 3.5 A $f_T = 0.8$ MHz min.	
			676	676					CT 353	
			2N6474 $V_{CEr(SUS)} = 130$ V $h_{FE} = 15-150$ @ 1.5 A $f_T = 5$ MHz typ $I_C = 4$ A max	2N6476 $V_{CEr(SUS)} = -130$ V $h_{FE} = 15-150$ @ -1.5 A $f_T = 5$ MHz typ $I_C = -4$ A max						
			676	676						

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