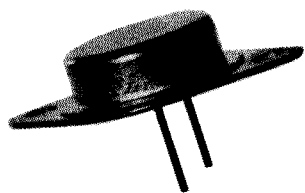


# germanium power transistors



## PNP TO-3 (cont'd)

$I_{C(MAX)} = 3 \text{ to } 25\text{A}$

$V_{CEO(SUS)} = 20 \text{ to } 100\text{V}$

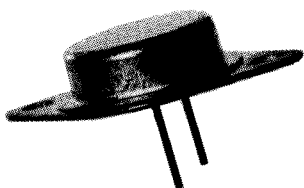
Type #	PNP Complement	$V_{CEO(SUS)}$ (Volts)	$V_{EBO}$ (Volts)	$h_{FE}$ @ $I_C/V_{CE}$ (Min-Max @ A/V)	$V_{CE(SAT)}$ @ $I_C/I_B$ (V @ A/A)	$V_{BE}$ @ $I_C/V_{CE}$ (V @ A/V)	$I_{CEY}$ @ $V_{CE}$ (mA @ V)	$P_D$ @ $T_C = 25^\circ\text{C}$ (Watts)	$\theta_{JC}$ ( $^\circ\text{C/W}$ )	$T_{J(MAX)}$ ( $^\circ\text{C}$ )	fr (KHz)	Generic Product	General Information		
2N456A		20	20	30-90@5/1.5	.5@5/.5	1.5@5/1.5	2 <sup>2</sup> @40	50	1.5	100	200	2N456A Family. 7 Amp PNP Germanium Alloy Power Transistors. Case 280	General Purpose Power Switch and Amplifier. Consumer, Industrial, and Military Usage.		
2N456B		30	30	30-90@5/1.5	.5@5/.5	1.5@5/1.5	2 <sup>2</sup> @40	150	0.5	100	200				
2N457A		30	20	30-90@5/1.5	.5@5/.5	1.5@5/1.5	2 <sup>2</sup> @60	50	1.5	100	200				
2N457B		40	30	30-90@5/1.5	.5@5/.5	1.5@5/1.5	2 <sup>2</sup> @60	150	0.5	100	200				
2N458A		40	20	30-90@5/1.5	.5@5/.5	1.5@5/1.5	2 <sup>2</sup> @80	50	1.5	100	200				
2N458B		45	30	30-90@5/1.5	.5@5/.5	1.5@5/1.5	2 <sup>2</sup> @80	150	0.5	100	200				
2N1021A		50	30	30-90@5/1.5	.5@5/.5	1.5@5/1.5	2 <sup>2</sup> @100	150	0.5	100	200				
2N1022A		55	30	30-90@5/1.5	.5@5/.5	1.5@5/1.5	2 <sup>2</sup> @120	150	0.5	100	200				
2N627		30( $V_{CES}$ )	20	10-30@10/2	1@10/1		20 <sup>2</sup> @40	94	0.8	100				2N627 Family. 10 Amp PNP Germanium Alloy Power Transistors. Case 280	General Purpose Power Switch and Amplifier. Consumer, Industrial, and Military Usage.
2N628		45( $V_{CES}$ )	30	10-30@10/2	1@10/1		20 <sup>2</sup> @60	94	0.8	100					
2N629		60( $V_{CES}$ )	40	10-30@10/2	1@10/1		20 <sup>2</sup> @80	94	0.8	100					
2N1549 <sup>s</sup>		20	20	10-30@10/2	1@10/1	1.3 <sup>3</sup> @10/1	20 <sup>2</sup> @40	94	0.8	100		2N1549 Family. 15 Amp PNP Germanium Alloy Power Transistors. Case 280	High Current General Purpose Power Switch and Amplifier. Consumer, Industrial, and Military Usage.		
2N1550 <sup>s</sup>		30	30	10-30@10/2	1@10/1	1.3 <sup>3</sup> @10/1	20 <sup>2</sup> @60	94	0.8	100					
2N1551 <sup>s</sup>		40	40	10-30@10/2	1@10/1	1.3 <sup>3</sup> @10/1	20 <sup>2</sup> @80	94	0.8	100					
2N1552 <sup>s</sup>		50	50	10-30@10/2	1@10/1	1.3 <sup>3</sup> @10/1	20 <sup>2</sup> @100	94	0.8	100					
2N1553 <sup>s</sup>		20	20	30-60@10/2	.7@10/1	1 <sup>3</sup> @10/1	20 <sup>2</sup> @40	94	0.8	100					
2N1554 <sup>s</sup>		30	30	30-60@10/2	.7@10/1	1 <sup>3</sup> @10/1	20 <sup>2</sup> @60	94	0.8	100					
2N1555 <sup>s</sup>		40	40	30-60@10/2	.7@10/1	1 <sup>3</sup> @10/1	20 <sup>2</sup> @80	94	0.8	100					
2N1556 <sup>s</sup>		50	50	30-60@10/2	.7@10/1	1 <sup>3</sup> @10/1	20 <sup>2</sup> @100	94	0.8	100					
2N1557 <sup>s</sup>		20	20	50-100@10/2	.5@10/1	.7 <sup>3</sup> @10/1	20 <sup>2</sup> @40	94	0.8	100					
2N1558 <sup>s</sup>		30	30	50-100@10/2	.5@10/1	.7 <sup>3</sup> @10/1	20 <sup>2</sup> @60	94	0.8	100					
2N1559 <sup>s</sup>		40	40	50-100@10/2	.5@10/1	.7 <sup>3</sup> @10/1	20 <sup>2</sup> @80	94	0.8	100					
2N1560 <sup>s</sup>		50	50	50-100@10/2	.5@10/1	.7 <sup>3</sup> @10/1	20 <sup>2</sup> @100	94	0.8	100					
2N1162		25	20	15-65@25/1	1@25/1.6	1.7 <sup>3</sup> @25/1.6	15 <sup>2</sup> @50	94	0.8	100				2N1162 Family. 25 Amp PNP Germanium Alloy Power Transistors. Case 280	High Current General Purpose Power Switch and Amplifier. Consumer, Industrial, and Military Usage.
2N1162A		25	25	15-65@25/1	1@25/1.6	1.7 <sup>3</sup> @25/1.6	15 <sup>2</sup> @50	94	0.8	100					
2N1164		35	25	15-65@25/1	1@25/1.6	1.7 <sup>3</sup> @25/1.6	15 <sup>2</sup> @80	94	0.8	100					
2N1164A		40	40	15-65@25/1	1@25/1.6	1.7 <sup>3</sup> @25/1.6	15 <sup>2</sup> @80	94	0.8	100					
2N1166		45	30	15-65@25/1	1@25/1.6	1.7 <sup>3</sup> @25/1.6	15 <sup>2</sup> @100	94	0.8	100					
2N2266A		50	50	15-65@25/1	1@25/1.6	1.7 <sup>3</sup> @25/1.6	15 <sup>2</sup> @100	94	0.8	100					

NOTES:

<sup>1</sup>  $I_{CBO}$  @  $V_{CB}$  (mA @ V)

<sup>2</sup>  $V_{BE(SAT)}$  @  $I_C/I_B$  (V @ A/A)

<sup>3</sup> The "A-Version" (e.g. 2N1529A) is also readily available. It's a high-reliability version of the "non-A Version."



## NPN TO-3

$I_{C(MAX)} = 3\text{A}$

$V_{CEO(SUS)} = 20 \text{ to } 80\text{V}$

Type #	PNP Complement	$V_{CEO(SUS)}$ (Volts)	$V_{EBO}$ (Volts)	$h_{FE}$ @ $I_C/V_{CE}$ (Min-Max @ A/V)	$V_{CE(SAT)}$ @ $I_C/I_B$ (V @ A/A)	$V_{BE}$ @ $I_C/V_{CE}$ (V @ A/V)	$I_{CEY}$ @ $V_{CE}$ (mA @ V)	$P_D$ @ $T_C = 25^\circ\text{C}$ (Watts)	$\theta_{JC}$ ( $^\circ\text{C/W}$ )	$T_{J(MAX)}$ ( $^\circ\text{C}$ )	Generic Product	General Information
2N1218		20	15	30-120@1/1.5	1@1/.05	.5-1.5@1/1.5	1@30	20	3.75	100	2N1292 Family. 3 Amp NPN Germanium Alloy Power Transistors. Case 280	General Purpose Power Switch and Amplifier. Consumer, Industrial, and Military Usage.
2N1292	2N1291	30( $V_{CES}$ )	15	>30@.5/2	1@1/.135	1@.5/2	1 <sup>2</sup> @35	25	3.0	100		
2N1294	2N1293	45( $V_{CES}$ )	15	>30@.5/2	1@1/.135	1@.5/2	2 <sup>2</sup> @60	25	3.0	100		
2N1296	2N1295	60( $V_{CES}$ )	15	>30@.5/2	1@1/.135	1@.5/2	3 <sup>2</sup> @80	25	3.0	100		
2N1298	2N1297	80( $V_{CES}$ )	15	>30@.5/2	1@1/.135	1@.5/2	4 <sup>2</sup> @100	25	3.0	100		

<sup>2</sup>  $I_{CBO}$  @  $V_{CB}$  (mA @ V)