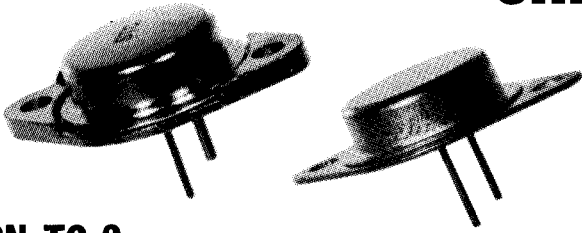


# silicon power transistors



## NPN TO-3

$I_{C(MAX)} = 3.0 \text{ to } 30\text{A}$

$V_{CEO(SUS)} = 35 \text{ to } 350\text{V}$

$f_T = 0.7 \text{ to } 60 \text{ MHz}$

Type #	$V_{CEO(SUS)}$ (Volts)	$I_{FE}$ @ $I_C/V_{CE}$ (Min-Max @ A/V)	$V_{CE(SAT)}$ @ $I_C/I_B$ (V @ A/A)	$V_{BE}$ @ $I_C/V_{CE}$ (V @ A/V)	$I_{CEV}$ @ $V_{CE}$ (mA @ V)	$P_D$ @ $T_C = 25^\circ\text{C}$ (Watts)	$\theta_{JC}$ ( $^\circ\text{C/W}$ )	$I_{S/2}$ @ $V_{CE}$ $t = 1\text{sec}$ (A @ V)	$f_T$ (MHz)	$t_{ON}$ @ $I_C/I_B$ ( $\mu\text{s}$ @ A/A)	$t_{OFF}$ @ $I_C/I_B$ ( $\mu\text{s}$ @ A/A)	Generic Product	General Information		
2N1487	40	15-45@1.5/4	3.0@1.5/.3	3.5@1.5/4	.025 <sup>2</sup> @30	75	2.33		1.0			<b>2N1490 Family.</b> 115 x 115 Mil Chip. Single Diffused Process. Clip Leads. Case 280	General Purpose Power Switch and Amplifier. Consumer, Industrial, and Military Usage.		
2N1488	55	15-45@1.5/4	3.0@1.5/.3	3.5@1.5/4	.025 <sup>2</sup> @30	75	2.33		1.0						
2N1489	40	25-75@1.5/4	1@1.5/.1	2.5@1.5/4	.025 <sup>2</sup> @30	75	2.33		1.0						
2N1490	55	25-75@1.5/4	1@1.5/.1	2.5@1.5/4	.025 <sup>2</sup> @30	75	2.33		1.0						
<b>Typical Values</b>	<b>60</b>	<b>15-100@1.5/4</b>	<b>.8@1.5/.1</b>	<b>1.7@1.5/4</b>	<b>.02<sup>2</sup>@30</b>	<b>75</b>	<b>2.33</b>	<b>3.75@20</b>	<b>1.0</b>	<b>3@1/.1</b>	<b>6@1/.1</b>				
2N3055	60	20-70@4/4	1.1@4/.4	1.8@4/4	5@100	117	1.5	1.95@80				<b>2N3055 Family.</b> 170 x 170 Mil Chip. Single Diffused Process. Clip Leads. Case 280	General Purpose Power Switch and Amplifier. Consumer, Industrial, and Military Usage.		
2N3232	60	18-55@3/10	2.5@3/.2	3.5@3/10	1@60	117	1.5		1.0						
2N3235	55	20-70@4/4	1.1@4/.4	1.8@4/4	5@90	117	1.5		1.0						
STC40251	40	15-60@8/4	1.5@8/.8	2.2@8/4	2@40	117	1.5	3.0@39							
STC40325	35	12-60@8/4	1.5@8/.8	2.0@8/4	5 <sup>2</sup> @30	117	1.5								
STC40363	70( $V_{CER}$ )	20-70@4/4	1.1@4/.4	1.8@4/4	.5 <sup>1</sup> @60	117	1.5		0.7						
STC40636	95( $V_{CER}$ )	20-70@4/4	1.0@4/.4	1.4@4/4	.5 <sup>1</sup> @85	117	1.5								
<b>Typical Values</b>	<b>75</b>	<b>20-100@4/4</b>	<b>.8@4/.4</b>	<b>1.6@4/4</b>	<b>.5@60</b>	<b>117</b>	<b>1.5</b>	<b>1.95@60</b>	<b>1.0</b>	<b>4@1/.1</b>	<b>6@1/.1</b>				
2N3233	100	18-55@3/10	2.5@3/.2	3.5@3/10	1@100	117	1.5		1.0			<b>2N3442 Family.</b> 170 x 170 Mil Chip. Single Diffused Process. Clip Leads. Case 280	General Purpose High Power Switch and Amplifier. Consumer, Industrial, and Military Usage.		
2N3234	160	18-55@3/10	2.5@3/.2	3.5@3/10	1@160	117	1.5		1.0						
2N3442	140	20-70@3/4	1.0@3/.3	1.7@3/4	5@140	117	1.5	1.5@78							
2N4347	120	15-60@2/4	1.0@2/.2	2.0@2/4	2@125	100	1.5	1.5@67							
<b>Typical Values</b>	<b>130</b>	<b>20-70@3/4</b>	<b>.8@3/.3</b>	<b>1.5@3/4</b>	<b>1@130</b>	<b>117</b>	<b>1.5</b>	<b>1.5@78</b>	<b>1.0</b>	<b>4@1/.1</b>	<b>6@1/.1</b>				
2N3236	90	17-60@5/4	1.1@5/.5	1.8@5/4	2@90	150	1.17		1.0			<b>2N3772 Family.</b> 240 x 240 Mil Chip. Single Diffused Process. Clip Leads. Case 281	General Purpose Power Switch and Amplifier. Consumer, Industrial, and Military Usage.		
2N3237	75	12-36@10/8	2.0@10/1.35	3@10/8	5@75	200	1.0		1.0						
2N3238	80	8.5-25@10/12	3@10/1.33	4@10/12	5@80	150	1.17		1.0						
2N3239	80	8.5-25@10/10	1.0@10/1.33	2@10/10	5@80	150	1.17		1.0						
2N3771	40	15-60@15/4	2.0@15/1.5	2.7@15/4	2@50	150	1.17	3.75@40	0.8						
2N3772	60	15-60@10/4	1.4@10/1.0	2.2@10/4	5@100	150	1.17	2.5@60	0.8						
STC40411	90( $V_{CER}$ )	35-100@4/4	.8@4/.4	1.2@4/4	5 <sup>1</sup> @80	150	1.17	5@40	0.8						
<b>Typical Values</b>	<b>60</b>	<b>15-100@10/4</b>	<b>1.0@10/1</b>	<b>1.7@10/4</b>	<b>1@60</b>	<b>150</b>	<b>1.17</b>	<b>3@50</b>	<b>1.0</b>	<b>5@1/.1</b>	<b>10@1/.1</b>				
2N3240	160	8.5-25@10/10	1.0@10/1.33	2@10/10	5@160	150	1.17		1.0			<b>2N3773 Family.</b> 240 x 240 Mil Chip. Single Diffused Process. Clip Leads. Case 281	General Purpose High Power Switch and Amplifier. Consumer, Industrial, and Military Usage.		
2N3773	140	15-60@8/4	1.4@8/.8	2.2@8/4	2@140	150	1.17	1.5@100	0.8						
2N4348	120	15-60@5/4	1.0@5/.5	2@5/4	2@125	120	1.46	1.5@80							
<b>Typical Values</b>	<b>140</b>	<b>15-100@8/4</b>	<b>1.1@8/.8</b>	<b>1.8@8/4</b>	<b>1@140</b>	<b>150</b>	<b>1.17</b>	<b>1.5@100</b>	<b>0.8</b>	<b>6@1/.1</b>	<b>10@1/.1</b>				
STA3445	60	20-60@3/5	1.5@3/.3	1.5@3/5	.1@60	115	1.5	7.5@15.3	10	.35@5/5	2.4@5/5	<b>STA3445 Family.</b> 140 x 140 Mil Chip. Double Epitaxial Process. Ultrasonically Bonded Leads. Case 282	High Speed, Power Amplifier and Switch. Industrial and Military Usage.		
STA3446	80	20-60@3/5	1.5@3/.3	1.5@3/5	.1@60	115	1.5	7.5@15.3	10	.35@5/5	2.4@5/5				
STA3447	60	40-120@5/5	1.5@5/5	1.4@5/5	.1@60	115	1.5	7.5@15.3	10	.35@5/5	2.4@5/5				
STA3448	80	40-120@5/5	1.5@5/5	1.4@5/5	.1@80	115	1.5	7.5@15.3	10	.35@5/5	2.4@5/5				
STA8350	100	20-200@4/3	1.5@4/4	2@4/3	1.0@100	115	1.5	7.5@15.3	40	.35@4/4	1@4/4				
STA8351	140	20-200@3/3	1.5@3/3	2@3/3	1.0@140	115	1.5	7.5@15.3	40	.35@3/3	1@3/3				
<b>NOTE: This product is developmental.</b>															
<b>Typical Values</b>	<b>120</b>	<b>20-200@3/5</b>	<b>1@3/3</b>	<b>1.4@3/5</b>	<b>.1@100</b>	<b>115</b>	<b>1.5</b>	<b>7.5@15.3</b>	<b>40</b>	<b>.35@5/5</b>	<b>1@5/5</b>				

<sup>1</sup>  $I_{CER}$  @  $V_{CE}$  (mA @ V)

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