



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089

TIP30A, TIP30B, TIP30C Silicon PNP Transistors Medium Power Amp, Switch

Absolute Maximum Ratings: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Collector-Base Voltage, V_{CBO}		
TIP30A	.....	60V
TIP30B	.....	80V
TIP30C	.....	100V
Collector-Emitter Voltage, V_{CEO}		
TIP30A	.....	60V
TIP30B	.....	80V
TIP30C	.....	100V
Emitter-Base Voltage, V_{EBO}		5V
Continuous Current, I_C		
Continuous	.....	1A
Pulse	.....	3A
Continuous Base Current, I_B		0.4A
Power Dissipation, P_D		
$T_C = +25^\circ\text{C}$	.....	30W
$T_A = +25^\circ\text{C}$	.....	2W
Operating Junction Temperature, T_J		+150°C
Storage Temperature Range, T_{stg}		-65° to +150°C

Electrical Characteristics: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Sustaining Voltage TIP30A	$V_{CEO(sus)}$	$I_C = 30\text{mA}, I_B = 0$, Note 1	60	-	-	V
			80	-	-	V
			100	-	-	V
Collector Cutoff Current TIP30A	I_{CEO}	$V_{CE} = 30\text{V}, I_B = 0$	-	-	0.3	mA
		$V_{CE} = 60\text{V}, I_B = 0$	-	-	0.3	mA
Collector Cutoff Current TIP30A	I_{CES}	$V_{CE} = 60\text{V}, V_{EB} = 0$	-	-	200	μA
		$V_{CE} = 80\text{V}, V_{EB} = 0$	-	-	200	μA
		$V_{CE} = 100\text{V}, V_{EB} = 0$	-	-	200	μA

Note 1. Pulsed: Pulse Duration $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

Electrical Characteristics (Cont'd): ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Emitter Cutoff Current	I_{EBO}	$V_{BE} = 5\text{V}, I_C = 0$	-	-	1.0	mA
DC Current Gain	h_{FE}	$V_{CE} = 4\text{V}, I_C = 0.2\text{A}, \text{Note 1}$	40	-	-	
		$V_{CE} = 4\text{V}, I_C = 1\text{A}, \text{Note 1}$	15	-	75	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 125\text{mA}, \text{Note 1}$	-	-	0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$V_{CE} = 4\text{V}, I_C = 1\text{A}, \text{Note 1}$	-	-	1.3	V
Current Gain Bandwidth Product	f_T	$V_{CE} = 10\text{V}, I_C = 200\text{mA}, f = 1\text{MHz}$	3	-	-	MHz

Note 1. Pulsed: Pulse Duration $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

