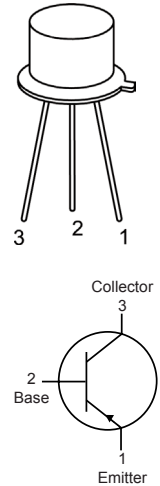


Bipolar Transistor

RoHS
Compliant



Description:

A silicon epitaxial PNP planar transistor in a TO-39 type package designed for use as drivers for high power transistors in general purpose amplifier and switching circuits.

Maximum Ratings:

Characteristic	Symbol	Rating	Unit
Collector - Emitter Voltage	V_{CEO}	60	V
Collector - Base Voltage	V_{CB}		
Emitter - Base Voltage	V_{EB}	7	
Collector Current	I_C	1	A
Base Current	I_B	200	mA
Total Device Dissipation ($T_C = +25^\circ\text{C}$)	P_{tot}	6	W
Total Device Dissipation ($T_A = +25^\circ\text{C}$)		1	
Operating Junction Temperature	T_J	+200	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +200	
Thermal Resistance, Junction-to-Case	R_{thJC}	29	$^\circ\text{C/W}$

Bipolar Transistor

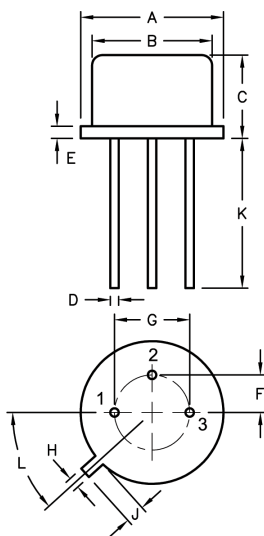


Electrical Characteristics: ($T_A = +25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 60\text{V}, I_E = 0$	-	100	μA
	I_{CEO}	$V_{CE} = 40\text{V}, I_B = 0$		1	mA
	I_{CEV}	$V_{CE} = 60\text{V}, V_{BE} = -1.5\text{V}$		100	μA
		$V_{CE} = 40\text{V}, V_{BE} = -1.5\text{V}, T_C = +150^\circ\text{C}$		1	mA
Emitter Cutoff Voltage	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$		500	μA
Collector - Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 100\text{mA}, I_B = 0, (\text{Note1})$	60	-	V
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 125\text{mA}, (\text{Note1})$	-	0.6	
Base-Emitter On Voltage	V_{BE}	$V_{CE} = 1\text{V}, I_C = 250\text{mA}$	-	1	
DC Current Gain	h_{FE}	$I_C = 250\text{mA}, V_{CE} = 1\text{V}, (\text{Note 1})$	30	150	-
		$I_C = 1\text{A}, V_{CE} = 1\text{V}, (\text{Note 1})$	10	-	
Transition Frequency	f_t	$V_{CE} = 10\text{V}, I_C = 100\text{mA}, f = 1\text{MHz}$	3	-	MHz
Collector - Base Capacitance	C_{cbo}	$V_{CB} = 10\text{V}, I_E = 0, f = 0.1\text{MHz}$	-	100	pF
Small - Signal Current Gain	h_{fe}	$V_{CE} = 10\text{V}, I_C = 50\text{mA}, f = 1\text{kHz}$	25	-	-

Note:

1. Pulse Test : Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 1\%$



Dimensions	A	B	C	D	E	F	G	H	I	J	K
Min.	8.5	7.74	6.09	0.4	-	2.41	4.82	0.71	0.73	12.7	42°
Max.	9.39	8.5	6.6	0.53	0.88	2.66	5.33	0.86	1.02	-	48°

Dimensions : Millimetres

Pin Configuration:

1. Emitter
2. Base
3. Collector

Part Number Table

Description	Part Number
Transistor, PNP, 1A, 60V, TO-39	2N4235

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