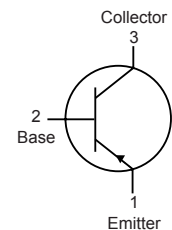
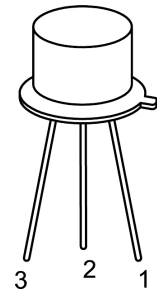


RoHS
Compliant



Description:

A epitaxial silicon 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:

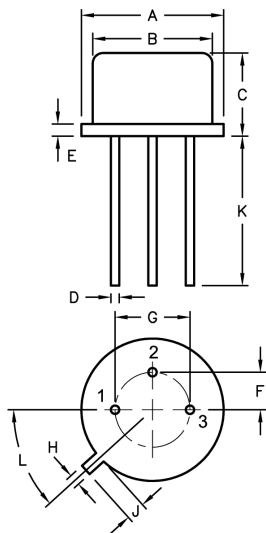
Characteristic	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	80	V
Collector - Emitter Voltage	V_{CEO}	60	
Emitter - Base Voltage	I_C	6	
Collector Current		1	A
Base Current	I_B	500	mA
Total Device Dissipation ($T_A = +25^\circ\text{C}$)	P_{tot}	1	W
Total Device Dissipation ($T_C = +25^\circ\text{C}$)		6	
Operating Junction Temperature Range	T_J	+200	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +200	
Thermal Resistance, Junction-to-Case	R_{thJC}	29	$^\circ\text{C/W}$

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_{CEV}	$V_{CE} = 80\text{V}, V_{BE} = -1.5\text{V}$		μA	
		$V_{CE} = 50\text{V}, V_{BE} = -1.5\text{V}, T_C = +150^\circ\text{C}$		1	mA
Emitter Cutoff Voltage	I_{EBO}	$V_{EB} = 6\text{V}, I_C = 0$		500	μA
Collector - Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 100\text{mA}, I_B = 0, (\text{Note}1)$	60	-	V
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}, (\text{Note}1)$	-	0.3	
		$I_C = 1\text{A}, I_B = 100\text{mA}, (\text{Note}1)$	-	0.6	
Base - Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 1\text{V}, I_C = 250\text{mA}$		1	
DC Current Gain	h_{FE}	$I_C = 1\text{A}, V_{CE} = 1\text{V}, (\text{Note}1)$	30	150	-
			15	-	
Collector - Base Capacitance	C_{cbo}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	-	100	pF
Small - Signal Current Gain	h_{fe}	$V_{CE} = 10\text{V}, I_C = 100\text{mA}, f = 1\text{kHz}$	30	-	-

Note:

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



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, 3A, 60V, TO-39	2N4238

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.