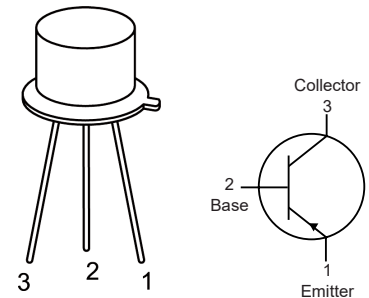


RoHS
Compliant



Maximum Ratings

Characteristic	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	80	V
Collector - Emitter Voltage	V _{CEO}	60	
Emitter - Base Voltage	V _{EB0}	6	A
Base Current	I _B	500	mA
Collector Current Continuous	I _C	1	A
Power Dissipation @ T _a = 25°C Derate Above 25°C	P _D	1 5.3	W mW/°C
Power Dissipation @ T _c = 25°C Derate Above 25°C	P _D	6 34	W mW/°C
Operating and Storage Junction Temperature Range	T _J , T _{STG}	-65 to +200	°C
Thermal Characteristics			
Junction to Case	R _{th(jc)}	29	°C/W

Electrical Characteristics: (T_A = +25°C Unless otherwise specified)

Parameter	Symbol	Test Conditions	Value	Unit
Collector Emitter Voltage	V _{CEO}	I _C = 1mA, I _B = 0	60	V
Collector Cut Off Current	I _{CEX}	V _{CE} = 50V, V _{EB} = 1.5V V _{CE} = 80V, V _{EB} = 1.5V V _{CE} = 100V, V _{EB} = 1.5V T _c = 150°C	0.1	mA
		V _{CE} = 30V, V _{EB} = 1.5V V _{CE} = 50V, V _{EB} = 1.5V V _{CE} = 70V, V _{EB} = 1.5V	1	mA

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cut Off Current	I _{CB0}	V _{CB} =Rated V _{CB0} , I _E =0	-	-	0.1	mA
Collector Cut Off Current	I _{CE0}	V _{CB} =Rated V _{CB0} , I _E =0	-	-	0.07	
Emitter Cut Off Current	I _{EB0}	V _{EB} = 6V, I _C = 0	-	-	0.5	
DC Current Gain	*h _{FE}	I _C = 50mA, V _{CE} = 1V	30	-	150	
		I _C = 250mA, V _{CE} = 1V	30			
		I _C = 500mA, V _{CE} = 1V	30			
		I _C = 1A, V _{CE} = 1V	15			

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

Small Signal Characteristics

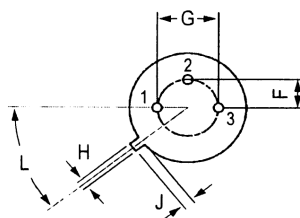
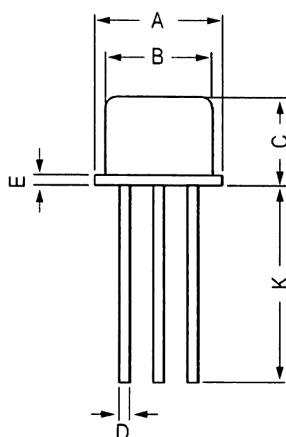
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Small Signal Characteristics	*V _{CE (sat)}	I _C = 500mA, I _B = 50mA I _C = 1A, I _B = 0.1A	-	-	0.3 0.6	V
Base Emitter Saturation Voltage	*V _{BE (sat)}	I _C = 1A, I _B = 0.1A	-	-	1.5	
Base Emitter On Voltage	*V _{BE (on)}	I _C = 250mA, V _{CE} = 1V	-	-	1	

Small Signal Characteristics

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Output Capacitance	C _{obo}	V _{CB} = 10V, I _E = 0, f = 0.1MHz	-	-	100	pF
Small Signal Current Gain	h _{fe}	I _C = 100mA, V _{CE} = 10V, f = 1KHz	30	-	-	
Current Gain High Frequency	h _{fe1}	I _C = 100mA, V _{CE} = 10V, f = 1MHz	1	-	-	

*Pulse Test: Pulse Width ≤300μS, Duty Cycle ≤2%

TO-39 Metal Can Package



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

Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, PNP, 3A, 60V, TO-39	2N4238

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