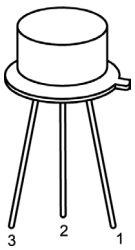
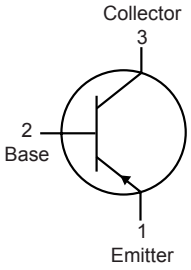
Silicon Transistor

RoHS Compliant





Description:

A silicon PNP transistor in a TO-39 type case designed primarily for amplifier and switching applications. This device features high breakdown voltage, low leakage current, low capacity, and beta useful over an extremely wide current range.

Maximum Ratings:

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	40	
Emitter Base Voltage	V_{EBO}	7	
Continuous Collector Current	I_C	1	A
Total Device Dissipation -(T_A = +25°C), Derate Above 25°C	P_D	1 5.72	W mW/°C
Total Device Dissipation -(T_C = +25°C), Derate Above 25°C		5 28.6	
Operating Junction Temperature Range	T_J	-65 to +200	°C
Storage Temperature Range	T_{stg}		
Thermal Resistance, Junction-to-Case	R_{thJC}	35	°C/W
Lead temperature (During Soldering, 1/16" from case, 60sec max)	T_L	300	°C

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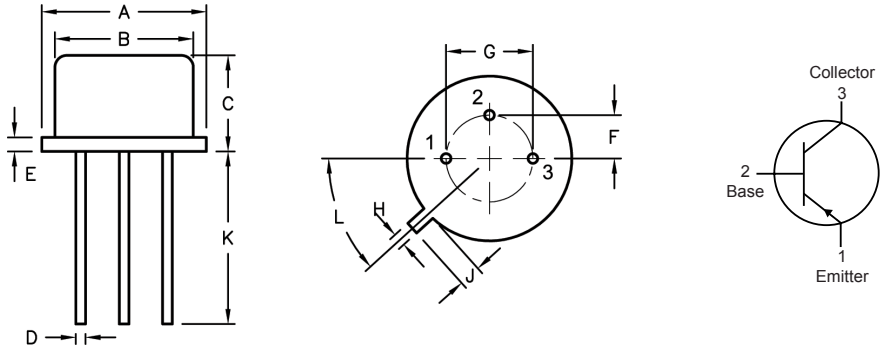
Electrical Characteristics: (T_A = +25°C Unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF Characteristics						
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 100mA, I_B = 0	40	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 100µA, I_E = 0	60			
Collector Cut-Off Current	I_{CBO}	V_{CB}= 60V, I_E = 0	-		250	nA
Emitter Cut-Off Voltage	I_{EBO}	V_{BE}= 5V, I_C = 0			1	µA
ON Characteristics (Note 1)						
DC Current Gain	h_{FE}	V_{CE} = 10V, I_C = 1mA	15	-	-	-
		V_{CE} = 10V, I_C = 150mA	50		250	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 150mA, I_B = 15mA	-		1.4	V
Base-Emitter On Voltage	$V_{BE(on)}$	V_{CE} = 10V, I_C = 150mA			1.5	
Small-Signal Characteristics						
Small-Signal Current Gain	h_{fe}	V_{CE} = 10V, I_C = 50mA, f = 20MHz	3	-	-	-

Note:
1. Pulse Test : Pulse Width ≤300µs, Duty Cycle ≦1%



Dim	A	B	C	D	E	F	G	H	J	K	L
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

Part Number Table

Description	Part Number
Transistor, PNP ,1A, 40V, TO-39	2N4037