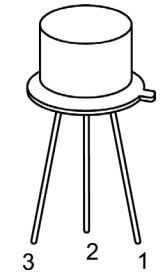
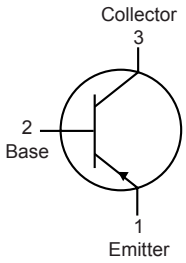
Bipolar Transistor

multicomp PRO





Description:

This is 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}	40	V
Collector - Emitter Voltage	V_{CEO}		
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 5.7	W mW/°C
Total Device Dissipation(T_C = +25°C), Derate above 25°C		6 34	
Operating Junction Temperature,	T_J	-65 to +200	°C
Storage Temperature Range,	T_{stg}	-65 to +200	
Thermal Resistance, Junction-to-Case,	R_{thJC}	29	°C/W
Lead Temperature (During Soldering,1/16" from case, 60 sec max)	T_L	300	°C

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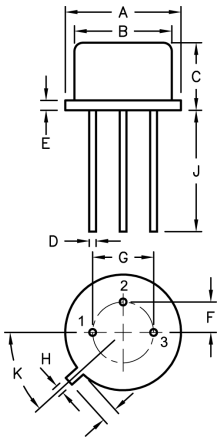
Electrical Characteristics: (T_A = +25°C Unless otherwise specified)

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 Cut-Off Current	I_{CBO}	V_{CB} = 40V, I_E = 0	-	-	100	µA
Emitter Cut-Off Voltage	I_{EBO}	V_{BE} = 7V, I_C = 0			500	
ON Characteristics (Note 1)						
DC Current Gain	h_{FE}	V_{CE} = 1V, I_C = 100mA	40	-	-	-
		V_{CE} = 1V, I_C = 250mA	30		150	
		V_{CE} = 1V, I_C = 500mA	20		-	
		V_{CE} = 1V, I_C = 1A	10			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 1A, I_B = 125mA	-		0.6	V
Base-Emitter On Voltage	$V_{BE(sat)}$	I_C = 1A, I_B = 100mA			1.5	
Small-Signal Characteristics						
Small-Signal Current Gain	h_{fe}	V_{CE} = 10V, I_C = 50mA, f = 1KHz	25	-	-	-
Output Capactiance	C_{cbo}	V_{CB} = 10V, f = 0.1MHz	-	-	100	pF
Input Capactiance	C_{ibo}	V_{BE} = 500mV, f = 1MHz			110	pF

Note:
1. Pulse Test : Pulse Width ≦300µs, Duty Cycle ≦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,3A,40V,TO39	2N4234