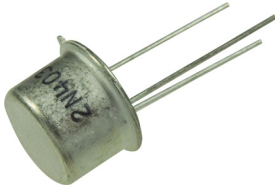
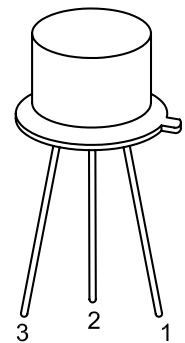
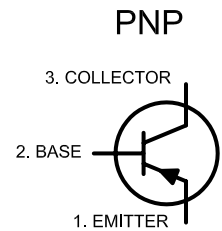


RoHS
Compliant



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.



Absolute Maximum Ratings

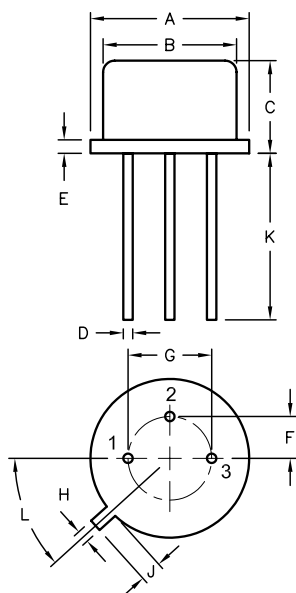
Characteristic	Symbol	Rating
Collector-Base Voltage	V_{CB0}	90V
Collector-Emitter Voltage	V_{CEO}	65V
Emitter - Base Voltage	V_{EBO}	7V
Continuous Collector Current	I_C	1A
Total Device Dissipation ($T_A = +25^\circ\text{C}$) Derate above 25°C	P_D	1W 5.72mW/ $^\circ\text{C}$
Total Device Dissipation ($T_C = +25^\circ\text{C}$) Derate above 25°C	P_D	5W 28.6mW/ $^\circ\text{C}$
Operating Junction Temperature Range	T_J	-65°C to $+200^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65°C to $+200^\circ\text{C}$
Thermal Resistance, Junction-to-Case	R_{thJC}	35°C
Lead Temperature (During Soldering, 1/16" from case, 60 sec. Max.)	T_L	300°C

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

Parameter	Symbol	Test Conditions	Min.	Max.	Unit.
OFF Characteristics					
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100\text{mA}$, $I_B = 0$	65	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_E = 10\mu\text{A}$, $I_C = 0$	7	-	
Collector Cut-off Current	I_{CBO}	$V_{CB} = 90\text{V}$, $I_E = 0$	-	100	μA
Emitter Cut-Off Current	I_{EBO}	$V_{BE} = 7\text{V}$, $I_C = 0$	-	10	μA
On Characteristics (Note 1)					
DC Current Gain	h_{FE}	$V_{CE} = 10\text{V}$, $I_C = 100\mu\text{A}$	20	-	-
		$V_{CE} = 2\text{V}$, $I_C = 150\text{mA}$	20	200	-
		$V_{CE} = 10\text{V}$, $I_C = 500\text{mA}$	20	-	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 150\text{mA}$, $I_B = 15\text{mA}$	-	0.65	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 150\text{mA}$, $I_B = 15\text{mA}$	-	1.4	V

Parameter	Symbol	Test Conditions	Min.	Max.	Unit.
Small-Signal Characteristics					
Small-Signal Current Gain	h_{fe}	$V_{CE} = 10V, I_C = 50mA, f = 20MHz$	1	-	-
Switching Characteristics					
Storage Time	t_s	$I_{B2} = 15mA$		600	nS
Turn-on Time	t_{on}	$I_{B1} = I_{B2}$		110	
Fall Time	t_f	$I_{B2} = 15mA$		100	

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



1. EMITTER
2. BASE
3. COLLECTOR

Dimensions	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
Bipolar Transistor, PNP, 1A, 65V, TO-39	2N4036

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