## **Transistor**







### **Absolute Maximum Ratings:**

Collector-Emitter Voltage, VCEO : 50V
Collector-Base Voltage, VCBO : 75V
Emitter-Base Voltage, VEBO : 5V
Continuous Collector Current, Ic : 2A
Base Current, IB : 1A
Total Power Dissipation (Tc = +25°C), PD : 10W

Derate Above 25°C : 0.057nw/°C Operating Junction Temperature, TJ : -65°C to 200°C Storage Temperature Range, Tstg : -65°C to 200°C Thermal Resistance, Junction -to-Case, RthJc : 17.5°C/W

#### **Electrical Characteristics:** (T<sub>A</sub> = +25°C Unless otherwise specified):

Parameter	Symbol	Test Conditions	Min	Max	Unit
OFF Characteristics	<u> </u>				
Collector-Emitter Breakdown Voltage	V(BR)CEO	Ic = 100mA, I <sub>B</sub> = 0 (Note1)	50	-	V
Collector Cutoff Current	ICEX	Vce = 75V, VBE = 1.5V	-	0.1	mA
		VcE = 45V, VBE = 1.5V, Tc = +150°C	-	5	mA
Emitter Cutoff Current	<b>І</b> ЕВО	V <sub>BE</sub> = 5V, I <sub>C</sub> = 0	-	0.1	mA
ON Characteristics (Note 1)					
DC Current Gain	hfE	Ic = 500mA, VcE = 4V	40	250	-
Collector-Emitter Saturation Voltage	Vce(sat)	Ic = 500mA, IB = 50mA	-	1.2	V
Base-Emitter ON Voltage	VBE(on)	Ic = 500mA, VcE = 4V	-	1.4	V
Small-Signal Characteristics					
Small-Signal Current Gain	hfe	Ic = 50mA, VcE = 4V, f = 10MHz	5.0	-	-
Switching Characteristics	-				
Turn-On Time	<b>t</b> on	Vcc = 30V, Ic = 500mA, I <sub>B1</sub> = 50mA - 10			ns
Turn-Off Time	toff	Vcc = 30V, Ic = 500mA, I <sub>B2</sub> = 50mA	-	1,000	ns

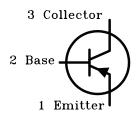
Notes: 1. Pulse Test: Pulse Width  $\leq 300 \mu s$ , Duty Cycle  $\leq 2\%$ .

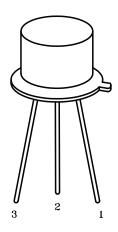


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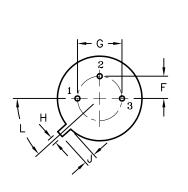


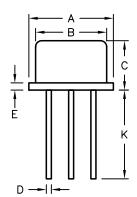
PNP





- 1. EMITTER
- 2. BASE
- 3 Collector





Dimensions	Α	В	С	D	Е	F	G	Н	J	K	L
Min.	8.5	7.74	6.09	0.4	1	2.41	4.82	0.71	0.73	12.7	45°
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, Silicon, TO-39, PNP, General Purpose	2N5323			

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