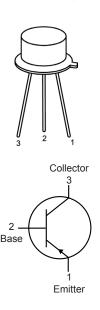
## **Silicon Transistor**

## multicomp PRO

# 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 <sub>CBO</sub>	60		
Collector-Emitter Voltage	V <sub>CEO</sub>	40	V	
Emitter Base Voltage	V <sub>EBO</sub>	7		
Continuous Collector Current	I <sub>C</sub>	1	А	
Total Device Dissipation -(T <sub>A</sub> = +25°C), Derate Above 25°C	C	1 5.72	W	
Total Device Dissipation -(T <sub>C</sub> = +25°C), Derate Above 25°C	P <sub>D</sub>	5 28.6	mW/°C	
Operating Junction Temperature Range	$T_J$	-65 to +200	°C	
Storage Temperature Range	T <sub>stg</sub>	-03 (0 +200		
Thermal Resistance, Junction-to-Case	R <sub>thJC</sub>	35	°C/W	
Lead temperature (During Soldering, 1/16" from case, 60sec max)	T <sub>L</sub>	300	°C	

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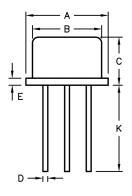


### Electrical Characteristics: (T<sub>A</sub> = +25°C Unless otherwise specified)

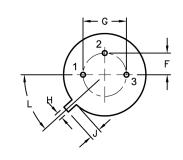
Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
OFF Characteristics	-1					
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 100mA, I <sub>B</sub> = 0	40			V
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>			1	-	V
Collector Cut-Off Current	I <sub>CBO</sub>	$V_{CB} = 60V, I_{E} = 0$	-	] - 	250	nA
Emitter Cut-Off Voltage	I <sub>EBO</sub>	$V_{BE} = 5V, I_C = 0$			1	μΑ
ON Characteristics (Note 1)			,			
DC Current Gain	h	$V_{CE} = 10V, I_{C} = 1mA$ 15			-	
DC Current Gain	h <sub>FE</sub>	$V_{CE} = 10V, I_{C} = 150mA$	50	_	250	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 150mA, I <sub>B</sub> = 15mA			1.4	V
Base-Emitter On Voltage	V <sub>BE(on)</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 150mA			1.5	
Small-Signal Characteristics			,	,		
			_			1

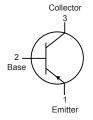
#### Note

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



Small-Signal Current Gain





 $V_{CF} = 10V, I_{C} = 50mA, f = 20MHz$ 

Dim	Α	В	С	D	E	F	G	Н	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			

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