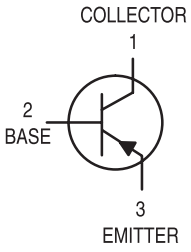
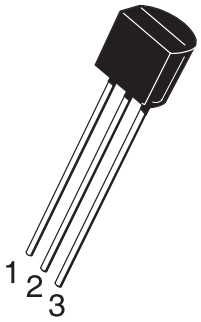
Bipolar Transistor

multicomp PRO





Pin Configuration:
1. Collector
2. Base
3. Emitter

Description:

Silicon Planar Epitaxial Transistors
General Purpose Transistors Best Suited for use in Driver and Output Stages of Audio Amplifier

Absolute Maximum Ratings

Description	Symbol	Value	Unit
Collector Emitter Voltage	V_{CEO}	45	V
Collector Emitter Voltage	V_{CES}	50	
Emitter Base Voltage	V_{EBO}	5	
Collector Current Continuous	I_C	800	mA
Collector Current Peak	I_{CM}	1,000	
Base Current Peak	I_{BM}	200	
Base Current Continuous	I_B	100	
Base Current Peak	I_{BM}	200	
Power Dissipation at T_a = 25°C Derate Above 25°C	P_D	625 5	mW mW/°C
Operating and Storage Junction Temperature Range	T_j, T_{stg}	-65 to +150	°C

Thermal Resistance

Junction to Ambient in Free Air	$R_{th\ (j-a)}$	200	°C/W

Electrical Characteristics (T_a = 25°C unless otherwise specified)

Description	Symbol	Test Condition	Min.	Max.	Unit
Collector Emitter Voltage	V_{CEO}	I_C = 1mA, I_B = 0	45	-	V
Collector Emitter Voltage	V_{CES}	I_C = 100µA, I_E = 0	50	-	
Emitter Base Voltage	V_{EBO}	I_E = 10µA, I_C = 0	5	-	
Collector Cut off Current	I_{CBO}	V_{CB} = 20V, I_E = 0 V_{CB} = 20V, I_E = 0, T_j = 150°C	-	100 5	nA µA
Emitter Cut off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	-	10	µA
Collector Emitter Saturation Voltage	*$V_{CE\ (sat)}$	I_C = 500mA, I_B = 50mA	-	0.7	V
Base Emitter On Voltage	*$V_{BE\ (on)}$	I_C = 500mA, V_{CE} = 1V	-	1.2	

*Pulse Test: Pulse Width ≤300ms, Duty Cycle ≤2%.

Electrical Characteristics (T_a = 25°C unless otherwise specified)

Description	Symbol	Test Condition	Min.	Typ.	Max.	Unit
DC Current Gain	h_{FE}	I_C = 100mA, V_{CE} = 1V	100	400	-	-
Small Signal Characteristics						
Transistors Frequency	f_T	I_C = 10mA, V_{CE} = 5V, f = 35MHz PNP	-	100	-	MHz
Input Capacitance	C_{ib}	V_{BE} = 10V, I_E = 0, f = 1MHz PNP	-	8	-	pF

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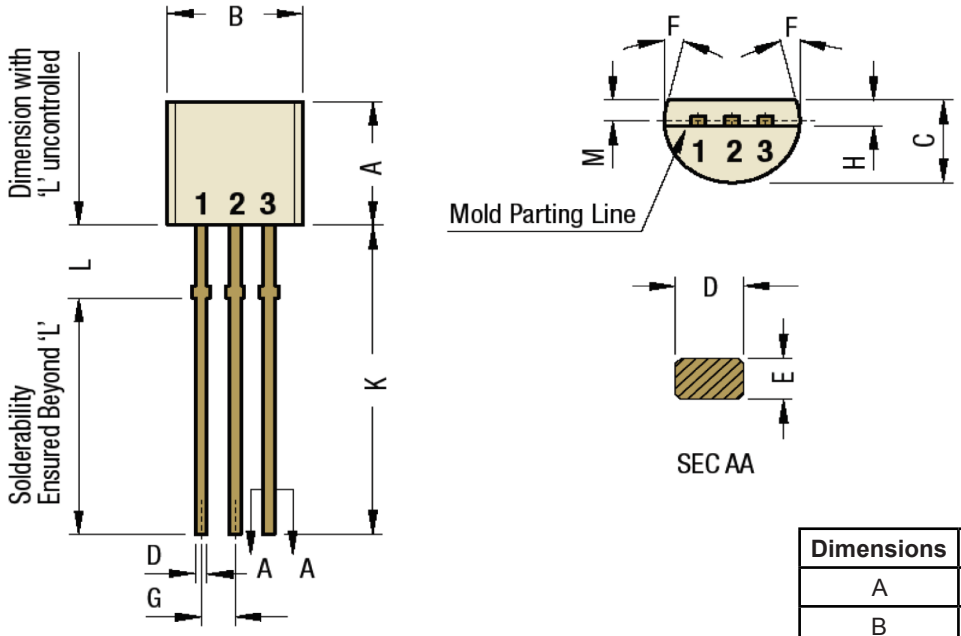

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Dimensions	Min.	Max.
A	4.32	5.33
B	4.45	5.2
C	3.18	4.19
D	0.4	0.55
E	0.3	0.55
F	5°	
G	1.14	1.4
H	1.2	1.8
K	12.5	-
L	1.982	2.082
M	1.03	1.53

Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, PNP, -45V, -0.8A, TO-92	BC327.25