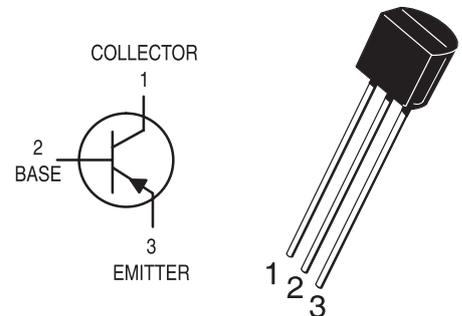


# Bipolar Transistor



### 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 $T_a = 25^\circ\text{C}$ Derate Above $25^\circ\text{C}$	$P_D$	625 5	mW mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	$T_j, T_{stg}$	-65 to +150	$^\circ\text{C}$

### Thermal Resistance

Junction to Ambient in Free Air	$R_{th(j-a)}$	200	$^\circ\text{C/W}$
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## Electrical Characteristics ( $T_a = 25^\circ\text{C}$ unless otherwise specified)

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

\*Pulse Test: Pulse Width  $\leq 300\text{ms}$ , Duty Cycle  $\leq 2\%$ .

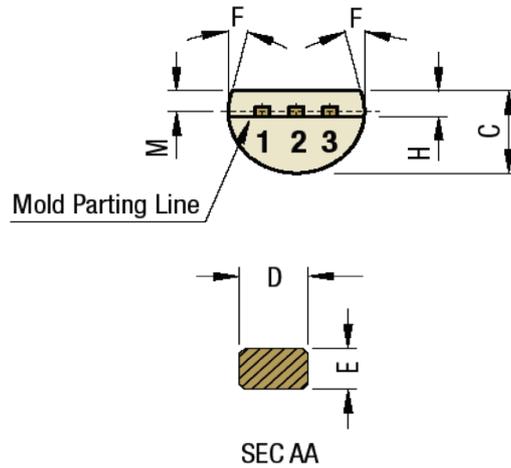
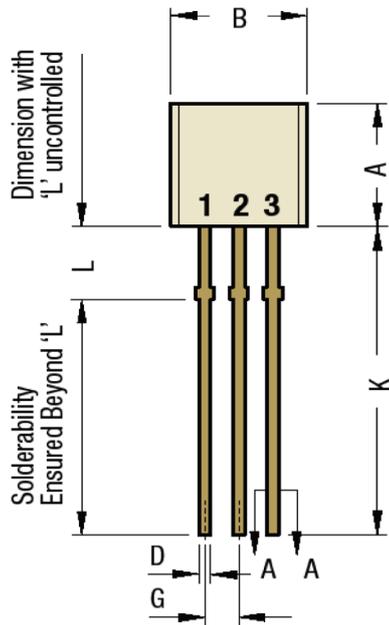
## Electrical Characteristics ( $T_a = 25^\circ\text{C}$ unless otherwise specified)

Description	Symbol	Test Condition	Min.	Typ.	Max.	Unit
DC Current Gain	$h_{FE}$	$I_C = 100\text{mA}, V_{CE} = 1\text{V}$	100	400	-	-

### Small Signal Characteristics

Transistors Frequency	$f_T$	$I_C = 10\text{mA}, V_{CE} = 5\text{V},$ $f = 35\text{MHz}$ PNP	-	100	-	MHz
Input Capacitance	$C_{ib}$	$V_{BE} = 10\text{V}, I_E = 0, f =$ 1MHz PNP	-	8	-	pF

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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

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