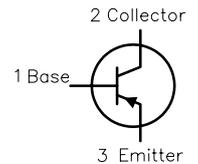
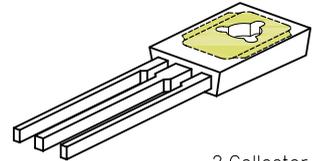




Description:

Silicon Power Transistor with TO-126 package, designed for low power audio amplifier and low current, high speed switching.

RoHS
Compliant



Absolute Maximum Ratings:

Characteristic	Symbol	Rating
Collector - Base Voltage	V_{CBO}	100V
Collector - Emitter Voltage	V_{CEO}	80V
Emitter - Base Voltage	V_{EBO}	7V
Continuous Collector Current	I_C	3A
Base Current	I_B	1A
Total Device Dissipation ($T_c = +25^\circ\text{C}$) Derate above 25°C	P_D	1.5W 0.012W/ $^\circ\text{C}$
Operating Junction Temperature Range	T_J	-65°C to $+150^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65°C to $+150^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
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OFF Characteristics

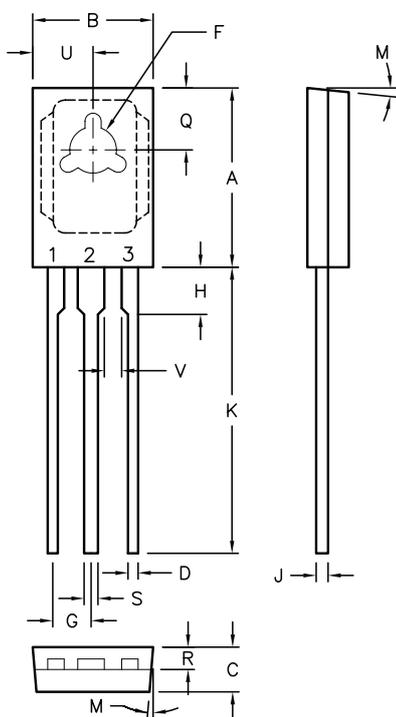
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$	80	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 100\text{V}, I_E = 0$	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 7\text{V}, I_C = 0$	-	0.1	μA

ON Characteristics

DC Current Gain	h_{FE}	$V_{CE} = 1\text{V}, I_C = 100\text{mA}$	50	250	-
		$V_{CE} = 1\text{V}, I_C = 500\text{mA}$	30	-	-
		$V_{CE} = 1\text{V}, I_C = 1.5\text{A}$	12	-	-
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$	-	0.3	V
		$I_C = 1.5\text{A}, I_B = 150\text{mA}$	-	0.9	
Base - Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 1.5\text{A}, I_B = 150\text{mA}$	-	1.5	V
		$I_C = 3\text{A}, I_B = 600\text{mA}$	-	2	
Base - Emitter On Voltage	$V_{BE(on)}$	$I_C = 500\text{mA}, V_{CE} = 1\text{V}$	-	1.2	V

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Small-Signal Characteristics					
Current Gain - Bandwidth Product (Note 1)	f_T	$V_{CE} = 10V, I_C = 100mA, f = 10MHz$	50	-	MHz
Output Capacitance	C_{OBO}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	-	60	pF

Note 1 : $f_T = f_{FE} f_{TEST}$



Dim.	Min.	Max.
A	10.8	11.05
B	7.49	7.75
C	2.41	2.67
D	0.51	0.66
F	2.92	3.18
G	2.31	2.46
H	1.27	2.41
J	0.38	0.64
K	15.11	16.64
M	3° TYP	
Q	3.76	4.01
R	1.14	1.4
S	0.64	0.89
U	3.68	3.94
V	1.02	-

Dimensions : Millimetres

Pin Configuration:

1. Base
2. Collector
3. Emitter

Part Number Table

Description	Part Number
Bipolar Transistor, PNP, 3A, 80V, TO-126	MJE172

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