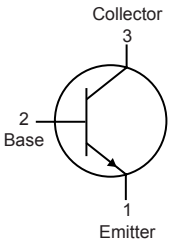
Low Power Transistor

Description:

Plastic, PNP, Silicon Power Transistorin A TO-126 PK Designed for low power audio amplifier and low current, high speed switching.

RoHS Compliant

PNP



Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	80	V
Collector-Base Voltage	V_{CBO}	100	
Emitter-Base Voltage	V_{EBO}	7	
Continuous Collector Current	I_C	3	A
Total Device Dissipation at T_c = 25°C Derate above 25°C	P_D	1.5 0.012	W W/°C
Operating and Storage Junction Temperature Range	T_j, T_{stg}	-65 to +150	°C

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

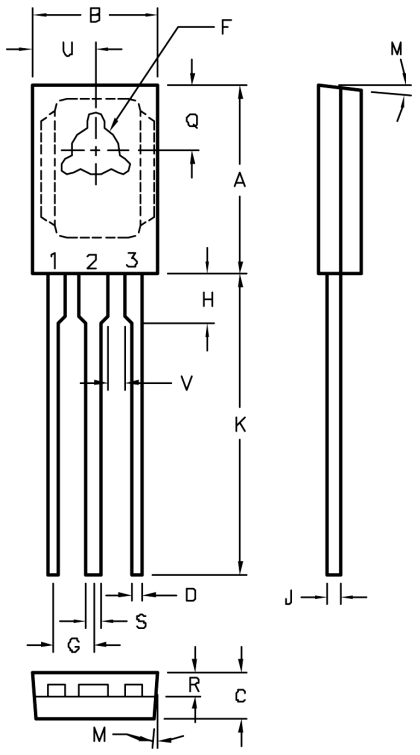
Parameter	Symbol	Test Conditions	Min.	Max.	Unit
OFF Characteristics					
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=10mA, I_B=0	80	-	V
Collector Cut-Off Current	I_{CBO}	V_{CB}=100V, I_B=0	-	0.1	µA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=7V, I_C=0	-	0.1	
ON Characteristics					
DC Current Gain	h_{FE}	V_{CE}=1V, I_C=100mA	50	250	-
		V_{CE}=1V, I_C=500mA	30	-	-
		V_{CE}=1V, I_C=1.5A	12	-	-
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA	-	0.3	V
		I_C=1.5A, I_B=150mA	-	0.9	
			-	1.7	
Base - Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=1.5A, I_B=150mA	-	1.5	
		I_C=3A, I_B=600mA	-	2	
Base-Emitter On Voltage	$V_{BE(on)}$	I_C=500mA, V_{CE}=1V	-	1.2	

Low Power Transistor

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

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=0.1MHz	-	60	pF

Note 1. $f_T = |h_{fe}| \cdot f_{test}$



Dimensions	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° Typical	
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. Emitter
2. Base
3. Collector

Part Number Table

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