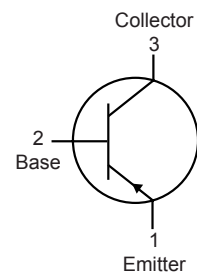


RoHS
Compliant



NPN



Description:

Silicon TO-126, PNP Power Transistor for use in power amplifier and switching excellent safe area limits

Maximum Ratings:

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}		
Emitter-Base Voltage	V_{EBO}	5	
Continuous Collector Current	I_C	4	A
Base Current	I_B	1	
Total Device Dissipation ($T_C = +25^\circ\text{C}$) Derate Above 25°C	P_D	40 320	W mW/ $^\circ\text{C}$
Operating Junction Temperature Range	T_J	-65 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}		

Bipolar Transistor



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	$V_{(BR)CEO}$	$I_C = 100\text{mA}, I_B = 0$ (Note 1)	80	-	V
Collector Cut-Off Current	I_{CEO}	$V_{CE} = 80\text{V}, I_E = 0$	-	1	mA
	I_{CEX}	$V_{CE} = 80\text{V}, V_{EB(off)} = 1.5\text{V}, I_E = 1.5\text{V}$		0.1	
	I_{CBO}	$V_{CB} = 80\text{V}, I_E = 0$			
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$		1	

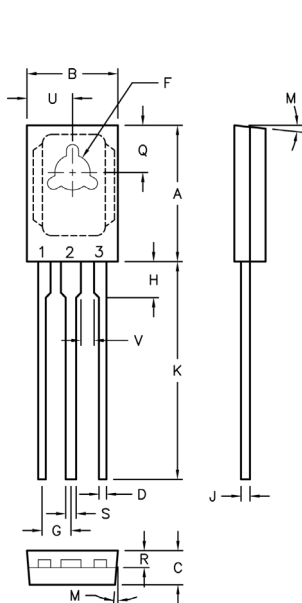
ON Characteristics

DC Current Gain (Note 1)	h_{FE}	$V_{CE} = 2\text{V}, I_C = 1.5\text{A}$	20	80	-
		$V_{CE} = 2\text{V}, I_C = 4\text{A}$	7	-	
Collector - Emitter Saturation Voltage (Note 1)	$V_{CE(sat)}$	$I_C = 1.5\text{A}, I_B = .15\text{mA}$	-	0.6	V
		$I_C = 4\text{A}, I_B = 1\text{A}$		1.4	
Base - Emitter on Voltage (Note 1)	$V_{BE(on)}$	$I_C = 1.5\text{A}, V_{CE} = 2\text{V}$		1.2	

Small Signal Characteristics

Current Gain-Bandwidth Product	f_T	$V_{CE} = 10\text{V}, I_C = 1\text{A}, f = 1\text{MHz}$	2	-	MHz
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Note 1 : Pulse Test : Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$



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° 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

Part Number Table

Description	Part Number
Transistor, PNP, 4A, 80V, TO-126	2N5195

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