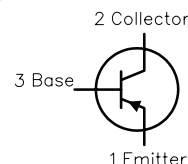
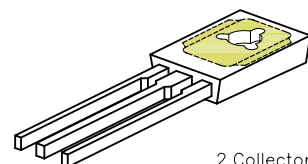




**RoHS
Compliant**



Description:

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

Absolute Maximum Ratings:

Characteristic	Symbol	Rating
Collector - Base Voltage	V_{CBO}	40V
Collector - Emitter Voltage	V_{CEO}	40V
Emitter - Base Voltage	V_{EBO}	5V
Continuous Collector Current	I_C	4A
Base Current	I_B	1A
Total Device Dissipation ($T_c = +25^\circ\text{C}$) Derate above 25°C	P_D	36W 320mW/ $^\circ\text{C}$
Operating Junction Temperature Range	T_J	-65°C to $+150^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65°C to $+150^\circ\text{C}$

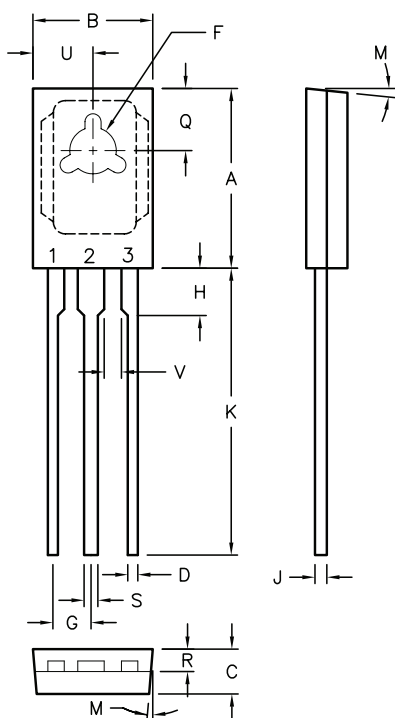
Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
OFF Characteristics					
Collector - Emitter Breakdown Voltage (Note 1)	$V_{(BR)CEO}$	$I_C = 0.1\text{A}, I_B = 0$	40	-	V
Collector Cut-off Current	I_{CEX}	$V_{CE} = 40\text{V}, V_{EB(off)} = 1.5\text{V}$	-	0.1	mA
	I_{CBO}	$V_{CB} = 40\text{V}, I_E = 0$	-	0.1	mA
	I_{CEO}	$V_{CB} = 40\text{V}, I_B = 0$	-	1	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	-	1	mA
ON Characteristics (Note 1)					
DC Current Gain	h_{FE}	$V_{CE} = 2\text{V}, I_C = 1.5\text{A}$	25	100	-
		$V_{CE} = 2\text{V}, I_C = 4\text{A}$	10	-	-
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1.5\text{A}, I_B = 0.15\text{A}$	-	0.6	V
		$I_C = 4\text{A}, I_B = 1\text{A}$	-	1.4	V
Base - Emitter On Voltage	$V_{BE(on)}$	$I_C = 1.5\text{A}, V_{CE} = 2\text{V}$	-	1.2	V

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Small-Signal Characteristics					
Current Gain - Bandwidth Product (Note 2)	f_T	$V_{CE} = 10V, I_C = 1A, f = 1MHz$	2	-	MHz

Note 1 : Pulse test : Pulse width $\leq 300\mu s$, Duty Cycle $\leq 1.5\%$

Note 2 : f_T is defined as the frequency at which $|h_{fe}|$ extrapolates to unity.



Pin Configuration:

1. Emitter
2. Collector
3. Base

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

Part Number Table

Description	Part Number
Bipolar Transistor, PNP, 1A, 40V, TO-126	2N5193

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