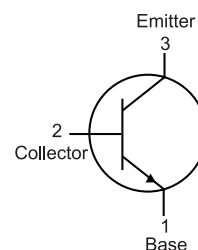
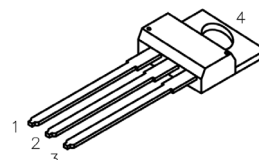
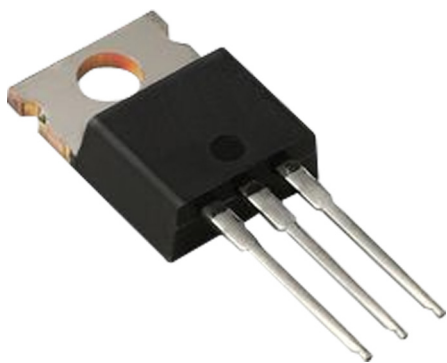


**RoHS
Compliant**



Description:

A silicon NPN transistor in a standard TO-220 type package designed for use in general purpose amplifier and switching applications

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}		

Electrical Characteristics (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
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OFF Characteristics

Collector-Emitter Breakdown Voltage (Note 1)	V _{(BR)CEO}	I _C = 0.1A, I _B = 0	80	-	V
Collector Cut-Off Current	I _{CEX}	V _{CE} = 80V, V _{EB(off)} = 1.5V	-	0.1	mA
	I _{CBO}	V _{CB} = 80V, I _E = 0			
	I _{CEO}	V _{EB} = 80V, I _B = 0			
Emitter Cut-Off Current	I _{EBO}	V _{EB} = 5V, I _C = 0		1	

ON Characteristics (Note 1)

DC Current Gain	h _{FE}	V _{CE} = 2V, I _C = 1.5A	20	80	-
		V _{CE} = 2V, I _C = 2A	7	-	
Collector - Emitter Saturation Voltage	V _{CE(sat)}	I _C = 1.5A, I _B = 0.15A	-	0.6	V
		I _C = 4A, I _B = 1A		1.4	
Base - Emitter on Voltage	V _{BE(on)}	I _C = 1.5A, V _{CE} = 2V		1.2	

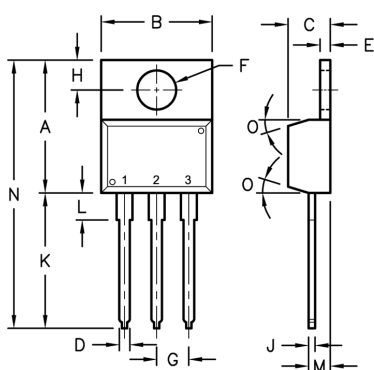
Small Signal Characteristics

Current Gain-Bandwidth Product	f _T	V _{CE} = 4V, I _C = 1A, f = 1MHz	2.5	-	MHz
Small-Signal Current Gain	h _{fe}	V _{CE} = 2V, I _C = 0.1A, f = 1kHz			-

Note 1 : Pulse Test : Pulse Width ≤ 300µs, Duty Cycle ≤ 2%

Dim.	A	B	C	D	E	F	G	H	J	K	L	M	N	O
Min.	14.42	9.63	3.56	-	1.15	3.75	2.29	2.54	-	12.7	2.8	2.03	-	7°
Max.	16.51	10.67	4.83	0.9	1.4	3.88	2.79	3.43	0.56	14.73	4.07	2.92	31.24	

Dimensions : Millimetres



Pin Configuration

1. Base
2. Collector
3. Emitter
4. Collector

Part Number Table

Description	Part Number
Transistor, NPN, 4A, 80V, TO-220	2N6123

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