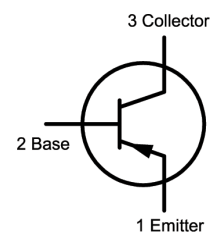
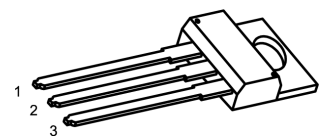
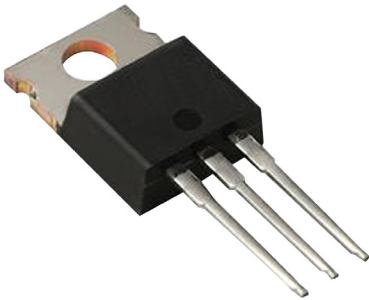


Bipolar Transistor

RoHS
Compliant



Pin Configuration:

1. Emitter
2. Base
3. Collector

Description:

A Silicon epitaxial PNP 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_{CB}	45	V
Collector-Emitter Voltage	V_{CEO}		
Emitter-Base Voltage	V_{EB}		
Collector Current -Continuous	I_C	4	A
Base Current	I_B	1	
Collector Power Dissipation ($T_C = +25^\circ\text{C}$), Derate Above 25°C	P_D	40 0.32	W W/ $^\circ\text{C}$
Operating Junction Temperature Range	T_J	-65 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}		
Thermal Resistance, Junction-to-Case	R_{thJC}	3.125	$^\circ\text{C}/\text{W}$

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 Saturation Voltage	$V_{CEO(SUS)}$	$I_C = 100\text{mA}, I_B = 0$, Note 1	45	-	V
Collector Cutoff Current	I_{CEO}	$V_{CE} = 45\text{V}, I_B = 0$	-	0.1	mA
	I_{CEX}	$V_{CE} = 45\text{V}, V_{BE(off)} = 1.5\text{V}$		2	
		$V_{CE} = 45\text{V}, V_{BE(off)} = -1.5\text{V}, T_C = +125^\circ\text{C}$		2	
Emitter Cutoff Current	I_{EBO}	$V_{BE} = 5\text{V}, I_C = 0$		1	

On Characteristics (Note 1)

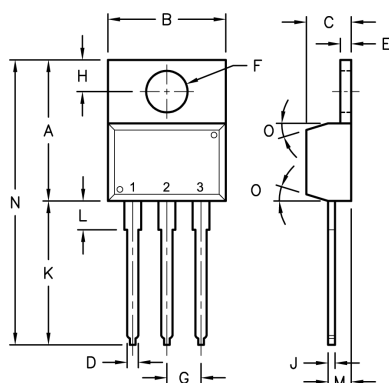
DC Current Gain	h_{FE}	$V_{CE} = 2\text{V}, I_C = 1.5\text{A}$	25	100	
		$V_{CE} = 2\text{V}, I_C = 4\text{A}$	10	-	
Collector-Emitter Saturation Voltage	$V_{CE(Sat)}$	$I_C = 4\text{A}, I_B = 1\text{A}$	-	1.4	V
Base-Emitter ON Voltage	$V_{BE(on)}$	$V_{CE} = 2\text{V}, I_C = 1.5\text{A}$		1.2	

Dynamic Characteristics

Current Gain - Bandwidth Product	f_T	$V_{CE} = 4\text{V}, I_C = 0.1\text{A}, f = 1\text{MHz}$	2.5	-	MHz
Small - signal Current Gain	h_{fe}	$V_{CB} = 2\text{V}, I_C = 0.1\text{A}, f = 1\text{kHz}$	25		

Note:

1. Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2\%$



Dim	A	B	C	D	E	F	G	H	J	K	L	M	N	O
Min.	14.42	9.63	3.65	-	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

Part Number Table

Description	Part Number
Transistor, PNP, 4A, 45V, TO-220	2N6124

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