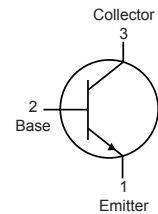
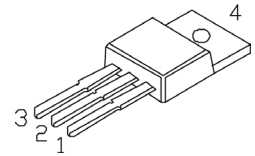
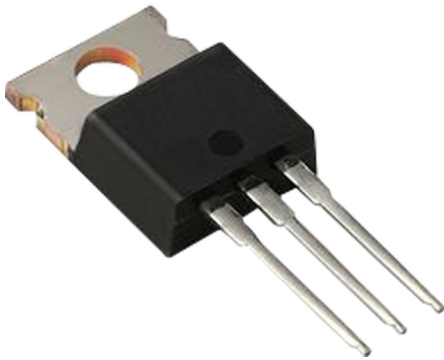


RoHS  
Compliant

NPN



### Maximum Ratings:

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	70	V
Collector-Emitter Voltage	$V_{CEO}$	80	
Emitter-Base Voltage	$V_{EBO}$	5	
Continuous Collector Current	$I_C$	7	A
Base Current	$I_B$	3	
Total Device Dissipation ( $T_C = +25^\circ\text{C}$ ) Derate Above $25^\circ\text{C}$	$P_D$	40	W mW/ $^\circ\text{C}$
Operating Junction Temperature Range	$T_J$	-65 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$		

# Power 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 (Note 1)	$V_{(BR)CEO}$	$I_C = 100\text{mA}, I_B = 0$	70	-	V
Collector Cut-Off Current	$I_{CEX}$	$V_{CE} = 80\text{V}, V_{EB(off)} = 1.5\text{V}$	-	100	$\mu\text{A}$
	$I_{CEO}$	$V_{CB} = 60\text{V}, I_B = 0$	-	1	mA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$	-	-	-

### ON Characteristics

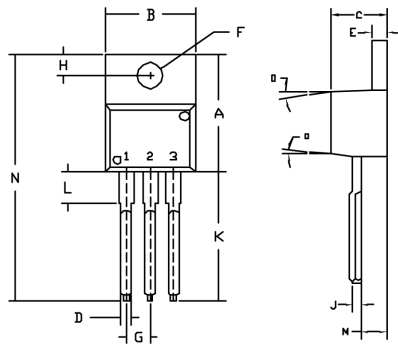
DC Current Gain (Note 1)	$h_{FE}$	$V_{CE} = 4\text{V}, I_C = 2\text{A}$	30	150	-
		$V_{CE} = 4\text{V}, I_C = 7\text{A}$	2.3	-	
Collector - Emitter Saturation Voltage (Note 1)	$V_{CE(sat)}$	$I_C = 7\text{A}, I_B = 3\text{A}$	-	3.5	V
Base - Emitter on Voltage (Note 1)	$V_{BE(on)}$	$I_C = 7\text{A}, V_{CE} = 4\text{V}$	-	3	

### Small Signal Characteristics

Current Gain-Bandwidth Product (Note 2)	$f_T$	$V_{CE} = 4\text{V}, I_C = 500\text{mA}, f = 1\text{MHz}$	4	-	MHz
Output Capacitance	$C_{ObO}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	-	250	pF
Small-Signal Current Gain	$h_{fe}$	$V_{CE} = 4\text{V}, I_C = .5\text{A}, f = 50\text{MHz}$	-	0.3	$\Omega$

Note 1 : Pulse Test : Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$

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



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

Dimensions : Millimetres

### Pin Configuration:

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

### Part Number Table

Description	Part Number
Transistor, NPN, 7A, 70V, TO-220	2N6292

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