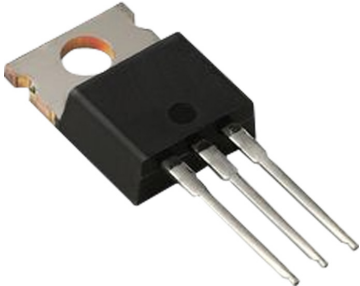
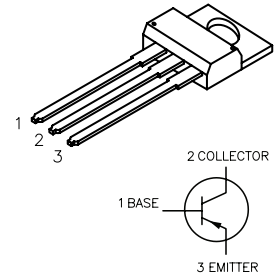


**RoHS  
Compliant**



### Description:

Silicon, TO-220, Plastic, PNP Power Transistor Designed for use in general purpose amplifier and switching applications



### Features:

- High Current Gain Bandwidth Product fr 10MHz (Min.) @ I<sub>c</sub> 500mA
- Collector Emitter Sustaining Voltage V<sub>CEO</sub> 70V (Min.)

### Absolute Maximum Ratings:

Characteristic	Symbol	Rating
Collector - Base Voltage	V <sub>CB0</sub>	80V
Collector - Emitter Voltage	V <sub>CEO</sub>	70V
Emitter - Base Voltage	V <sub>EB0</sub>	5V
Continuous Collector Current	I <sub>c</sub>	7A
Base Current	I <sub>B</sub>	3A
Total Device Dissipation (T <sub>c</sub> = +25°C), Derate above 25°C	P <sub>D</sub>	40W 0.32mW/°C
Operating Junction Temperature Range	T <sub>J</sub>	-65°C to +150°C
Storage Temperature Range	T <sub>STG</sub>	-65°C to +150°C

### Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
<b>OFF Characteristics</b>					
Collector - Emitter Breakdown Voltage (Note 1)	V <sub>(BR)CEO</sub>	I <sub>c</sub> = 100mA, I <sub>B</sub> = 0	70	-	V
Collector Cut-off Current	I <sub>CEX</sub>	V <sub>CE</sub> = 80V, V <sub>BE(off)</sub> = 1.5V	-	100	μA
	I <sub>CEO</sub>	V <sub>CB</sub> = 60V, I <sub>B</sub> = 0	-	1	mA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>c</sub> = 0	-	1	mA
<b>ON Characteristics</b>					
DC Current Gain, Note 1	h <sub>FE</sub>	V <sub>CE</sub> = 4V, I <sub>c</sub> = 2A	30	150	-
		V <sub>CE</sub> = 4V, I <sub>c</sub> = 7A	2.3	-	-

Newark.com/multicomp-pro  
Farnell.com/multicomp-pro  
Element14.com/multicomp-pro

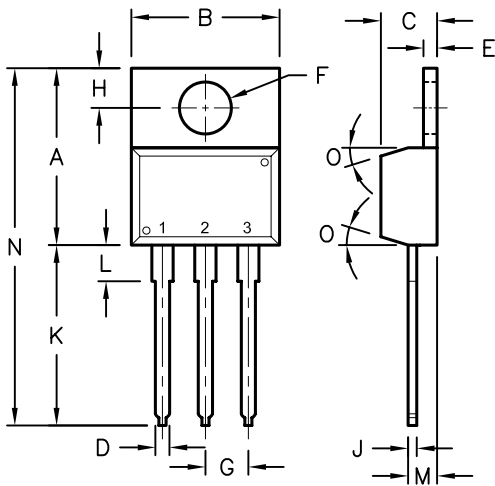
Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 7A, I_B = 3A$	-	3.5	V
Base - Emitter On Voltage	$V_{BE(on)}$	$I_C = 7A, V_{CE} = 4V$	-	3	V

### Small-Signal Characteristics

Current Gain - Bandwidth Product	$f_T$	$V_{CE} = 10V, I_C = 0.5A, f = 1MHz$	3	-	MHz
Output Capacitance	$C_{obo}$	$V_{CB} = 10V, I_E = 0, f = 0.1MHz$	-	250	pF
Small-Signal Current Gain	$h_{FE}$	$V_{CE} = 4V, I_C = 0.5A, f = 50kHz$	20	-	-

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

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



### Pin Configuration:

1. Base
2. Collector
3. Emitter

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
Bipolar Transistor, PNP, 7A, 70V, TO-220	2N6107

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