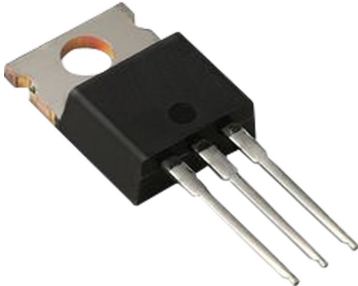
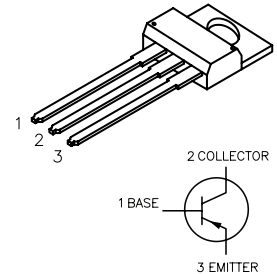


RoHS  
Compliant



### Description:

TO-220 PNP silicon plastic transistor designed for use in high frequency drivers in audio amplifier applications



### Features:

- Collector Emitter Saturation Voltage,  $V_{CE0} = 120V$
- D.C.Current Gain Specified to 8 Amperes,  $h_{FE} = 40 \text{ min. @ } I_C = 3A$   
 $h_{FE} = 20 \text{ min. @ } I_C = 4A$

### Absolute Maximum Ratings:

Characteristic	Symbol	Rating
Collector - Base Voltage	$V_{CB0}$	120V
Collector - Emitter Voltage	$V_{CE0}$	120V
Emitter - Base Voltage	$V_{EB0}$	5V
Continuous Collector Current	$I_C$	8A
Base Current	$I_B$	2A
Total Device Dissipation ( $T_C = +25^\circ C$ ), Derate above $25^\circ C$	$P_D$	50W 0.4W/ $^\circ C$
Operating Junction Temperature Range	$T_J$	$-65^\circ C$ to $+150^\circ C$
Storage Temperature Range	$T_{STG}$	$-65^\circ C$ to $+150^\circ C$

### Electrical Characteristics ( $T_A = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
<b>OFF Characteristics</b>					
Collector - Emitter Breakdown Voltage	$V_{(BR)CE0}$	$I_C = 30mA, I_B = 0, (Note 1)$	120	-	V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 120V, I_E = 0$	-	10	$\mu A$
	$I_{CEO}$	$V_{CB} = 120V, I_B = 0$	-	0.1	mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	-	10	$\mu A$
<b>ON Characteristics</b>					
DC Current Gain, (Note 1)	$h_{FE}$	$V_{CE} 2V, I_C = 0.1A$	40	-	-
		$V_{CE} 2V, I_C = 2A$	40	-	-
		$V_{CE} 2V, I_C = 3A$	40	-	-
		$V_{CE} 2V, I_C = 4A$	20	-	-

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

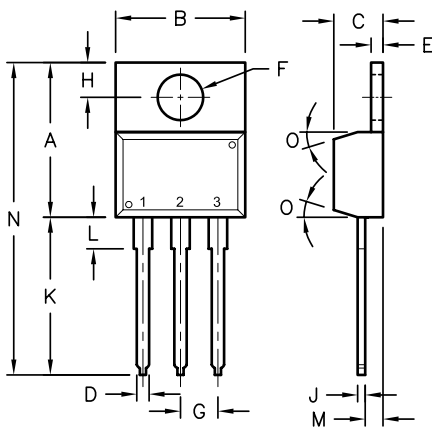
Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 0.1A$ (Note 1)	-	0.5	V
Base - Emitter On Voltage	$V_{BE(on)}$	$I_C = 1A, V_{CE} = 2V$ (Note 1)	-	1	V

### Small-Signal Characteristics (Note 2)

Current Gain - Bandwidth Product	$f_T$	$V_{CE} = 20V, I_C = 20mA, f = 100MHz$	30	-	MHz
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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, 8A, 120V, TO-220	MJE15029

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