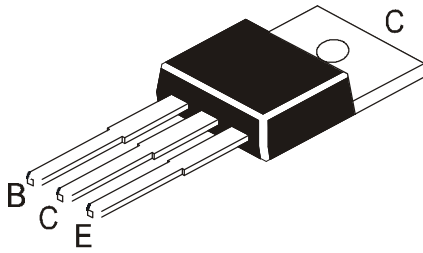


## PLASTIC POWER TRANSISTORS

2N6107 PNP  
2N6292 NPN

TO-220  
Plastic Package



### General Purpose Amplifier and Switching Applications

#### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	$V_{CBO}$	80	V
Collector Emitter Voltage	$V_{CEO}$	70	V
Collector Emitter Voltage ( $R_{BE}=100\Omega$ )	$V_{CER}$	80	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current (Peak)	$I_{CM}$	10	A
Collector Current Continuous	$I_C$	7	A
Base Current	$I_B$	3	A
Power Dissipation upto $T_c=25^\circ\text{C}$ Derating factor above $25^\circ\text{C}$	$P_D$	40 0.32	W W/ $^\circ\text{C}$
Power Dissipation upto $T_a=25^\circ\text{C}$ Derating factor above $25^\circ\text{C}$	$P_D$	2 16	W mW/ $^\circ\text{C}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	- 65 to 150	$^\circ\text{C}$

#### THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	3.125	$^\circ\text{C/W}$
Junction to Ambient	$R_{th(j-a)}$	62.50	$^\circ\text{C/W}$

#### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut off Current	$I_{CEO}$	$V_{CE}=60\text{V}, I_B=0$			1.0	mA
Collector Cut off Current	$I_{CEX}$	$V_{EB(off)}=1.5\text{V}; V_{CE}=80\text{V}$			0.1	mA
		$V_{EB(off)}=1.5\text{V}; V_{CE}=70\text{V}; T_c=150^\circ\text{C}$			2.0	mA
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			1.0	mA
Collector Emitter (sus) Voltage	$*V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	70			V
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=3\text{A}, I_B=0.3\text{A}$			1.0	V
		$I_C=7\text{A}, I_B=3.0\text{A}$			3.5	V
Base Emitter on Voltage	$*V_{BE(on)}$	$I_C=2\text{A}, V_{CE}=4\text{V}$			1.5	V
		$I_C=7\text{A}, V_{CE}=4\text{V}$			3.0	V
DC Current Gain	$*h_{FE}$	$I_C=2\text{A}, V_{CE}=4\text{V}$	30		150	
		$I_C=7\text{A}, V_{CE}=4\text{V}$	2.3			

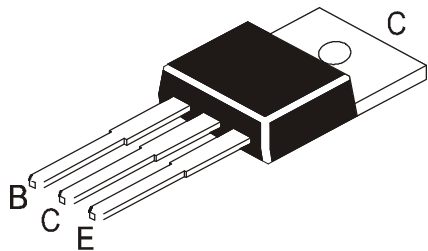
\*Pulse Test : Pulse duration  $\leq 300\mu\text{s}$ ; Duty cycle  $\leq 1.5\%$

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## PLASTIC POWER TRANSISTORS

2N6107 PNP  
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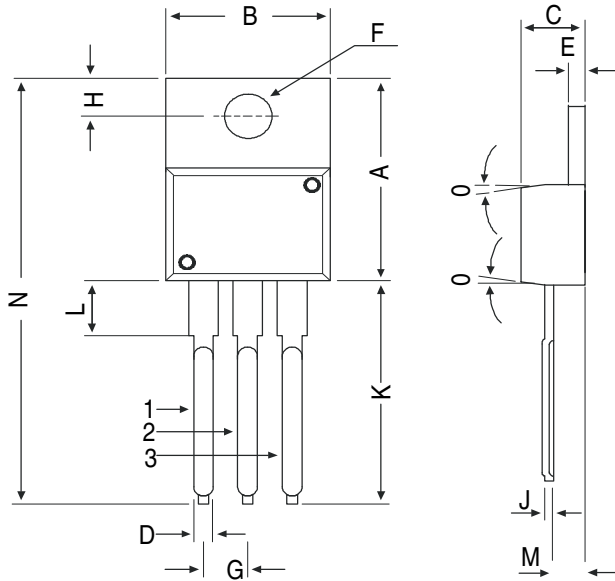
### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless specified otherwise)

#### DYNAMIC CHARACTERISTIC

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Small Signal Current Gain	$h_{fe}$	$I_C=500\text{mA}, V_{CE}=4\text{V}, f=50\text{KHz}$	20			
Output Capacitance	$C_{ob}$	$I_E=0, V_{CB}=10\text{V}, f=1\text{ MHz}$			250	pF
Transition frequency	$f_T$	$I_C=500\text{mA}, V_{CE}=4\text{V}$ <b>2N6107</b>	10			MHz
		<b>2N6292</b>	4			MHz

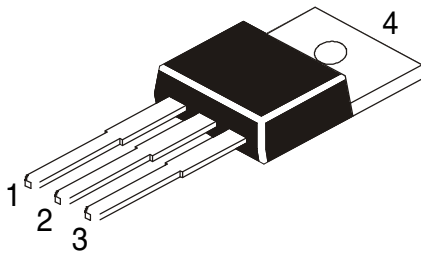
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TO-220 Plastic Package



DIM	MIN	MAX
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	—	0.90
E	1.15	1.50
F	3.53	4.10
G	2.29	2.79
H	2.54	3.43
J	0.36	0.61
K	12.70	14.73
L	2.80	6.35
M	2.00	2.92
N	—	31.24
O	7 DEG	

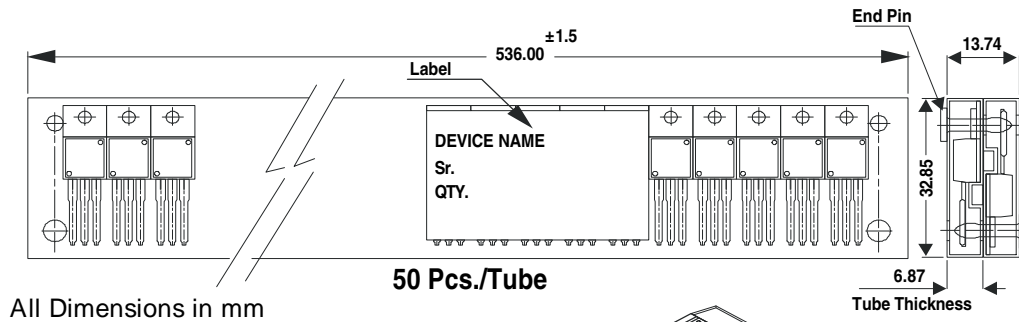
All dimensions in mm.



Pin Configuration

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

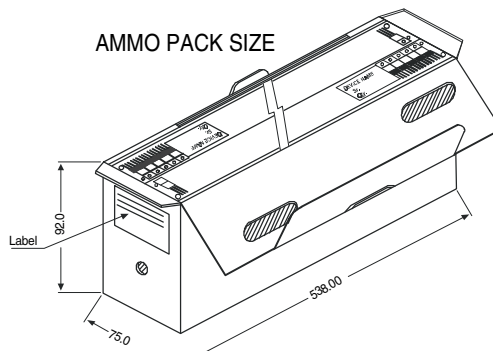
TO-220 Tube Packing



All Dimensions in mm

50 Pcs./Tube

AMMO PACK SIZE



... Packaging Specifications

T & A: Tape and Ammo Pack; T & R: Tape and Reel; Bulk: Loose in Poly Bags; Tube: Tube and Carton; K: 1,000

Package / Case Type	Packaging Type	Std. Packing		Inner Carton		Outer Carton		
		Qty	Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
TO-220	Bulk	1,000	1K	19 x 19 x 8	2.0	10K	46 x 38 x 22	21.6
	Tube	1,000 (50 pcs/tube)	1K	55 x 8 x 10	2.8	10K	55 x 35 x 27	28.3

**Component Disposal Instructions**

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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