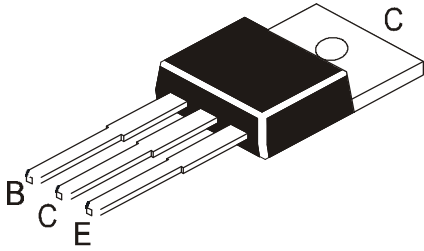


**PLASTIC POWER TRANSISTORS**

**2N6107 PNP**  
**2N6292 NPN**

**TO-220**  
**Plastic Package**



**General Purpose Amplifier and Switching Applications**

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V <sub>CB0</sub>	80	V
Collector Emitter Voltage	V <sub>CEO</sub>	70	V
Collector Emitter Voltage (R <sub>BE</sub> = 100W)	V <sub>CER</sub>	80	V
Emitter Base Voltage	V <sub>EBO</sub>	5	V
Collector Current (Peak)	I <sub>CM</sub>	100	A
Collector Current Continuous	I <sub>C</sub>	7	A
Base Current	I <sub>B</sub>	3	A
Power Dissipation upto T <sub>c</sub> =25°C	P <sub>D</sub>	40	W
Derating factor above 25°C		0.32	W/°C
Power Dissipation upto T <sub>a</sub> =25°C	P <sub>D</sub>	2	W
Derating factor above 25°C		16	mW/°C
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	- 65 to 150	°C

**THERMAL RESISTANCE**

Junction to Case	R <sub>th (j-c)</sub>	3.125	°C/W
Junction to Ambient	R <sub>th (j-a)</sub>	62.50	°C/W

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless specified otherwise)**

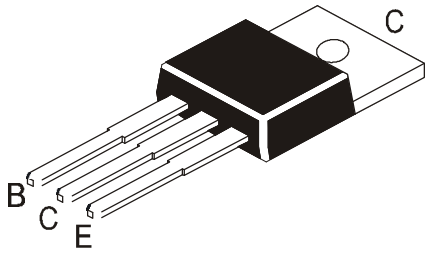
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut Off Current	I <sub>CEO</sub>	V <sub>CE</sub> =60V, I <sub>B</sub> =0			1.0	mA
Collector Cut Off Current	I <sub>CEX</sub>	V <sub>EB(off)</sub> =1.5V; V <sub>CE</sub> =80V			0.1	mA
		V <sub>EB(off)</sub> =1.5V; V <sub>CE</sub> =70V; T <sub>c</sub> =150°C			2.0	mA
Emitter Cut Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			1.0	mA
Collector Emitter (sus) Voltage	*V <sub>CEO(sus)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =0	70			V
Collector Emitter Saturation Voltage	*V <sub>CE(sat)</sub>	I <sub>C</sub> =3A, I <sub>B</sub> =0.3A			1.0	V
		I <sub>C</sub> =7A, I <sub>B</sub> =3.0A			3.5	V
Base Emitter On Voltage	*V <sub>BE(on)</sub>	I <sub>C</sub> =2A, V <sub>CE</sub> =4V			1.5	V
		I <sub>C</sub> =7A, V <sub>CE</sub> =4V			3.0	V
DC Current Gain	*h <sub>FE</sub>	I <sub>C</sub> =2A, V <sub>CE</sub> =4V	30		150	
		I <sub>C</sub> =7A, V <sub>CE</sub> =4V	2.3			

\*Pulse Test : Pulse duration ≤ 300ms; Duty cycle ≤ 1.5%

## PLASTIC POWER TRANSISTORS

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Plastic Package



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

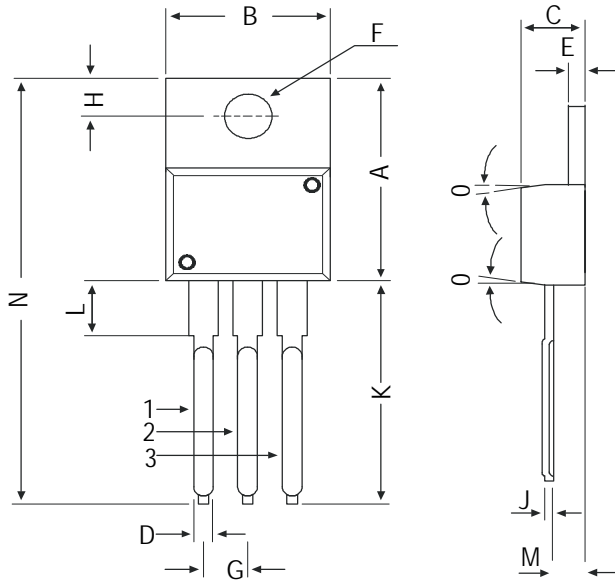
#### DYNAMIC CHARACTERISTIC

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

**2N6107 PNP**  
**2N6292 NPN**

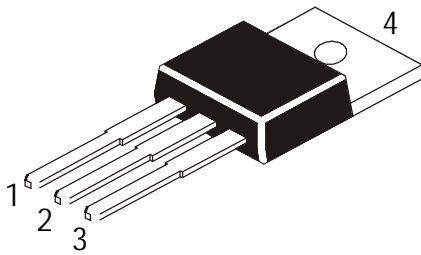
**TO-220**  
**Plastic Package**

**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	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	—	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	—	31.24
O	7 DEG	

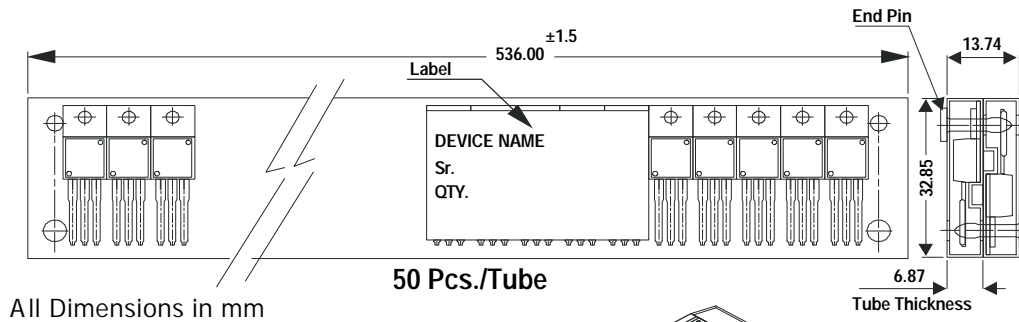
All dimensions in mm.



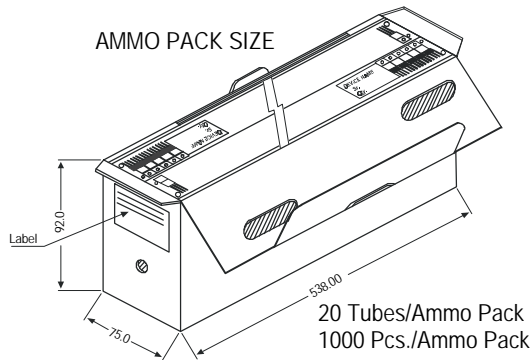
**Pin Configuration**

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

**TO-220 Tube Packing**



AMMO PACK SIZE



**Packing Detail**

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-220	200 pcs/polybag	396 gm/200 pcs	3" x 7.5" x 7.5"	1.0K	17" x 15" x 13.5"	16.0K	36 kgs
	50 pcs/tube	120 gm/50 pcs	3.5" x 3.7" x 21.5"	1.0K	19" x 19" x 19"	10.0K	29 kgs

### **Disclaimer**

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CDIL is a registered Trademark of  
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.  
Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11- 2579 5290, 5141 1119  
email@cdil.com www.cdilsemi.com