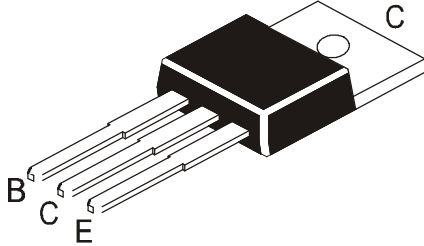


**PLASTIC POWER TRANSISTORS**

TIP100	TIP105
TIP101	TIP106
TIP102	TIP107
NPN	PNP



**TO-220  
Plastic Package**

**Intended for use in Linear Switching Applications**

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

DESCRIPTION		TIP100/105	TIP101/106	TIP102/107	UNIT
Collector Emitter Voltage	V <sub>CEO</sub>	60	80	100	V
Collector Base Voltage	V <sub>CBO</sub>	60	80	100	V
Emitter Base Voltage	V <sub>EBO</sub>		5		V
Collector Current Continuous	I <sub>C</sub>		8		A
Collector Current Peak	I <sub>CM</sub>		15		A
Base Current	I <sub>B</sub>		1		A
Power Dissipation upto T <sub>c</sub> =25°C	P <sub>D</sub>		80		W
Power Dissipation upto T <sub>a</sub> =25°C Derate above 25°C	P <sub>D</sub>		2 16		W mW/°C
Operating And Storage Junction Temperature	T <sub>j</sub> , T <sub>stg</sub>		- 65 to +150		°C

**THERMAL RESISTANCE**

Junction to Case	R <sub>th(j-c)</sub>	1.56	°C/W
Junction to Ambient in free air	R <sub>th(j-a)</sub>	62.5	°C/W

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

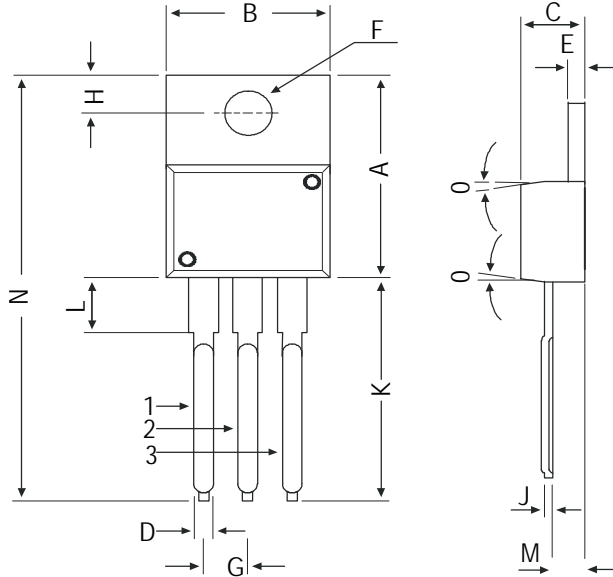
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cut Off Current	I <sub>CEO</sub>	V <sub>CE</sub> =30V, I <sub>B</sub> =0		50	μA
		V <sub>CE</sub> =40V, I <sub>B</sub> =0	TIP100/105	50	μA
		V <sub>CE</sub> =50V, I <sub>B</sub> =0	TIP101/106 TIP102/107	50	μA
Collector Cut Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =60V, I <sub>E</sub> =0		50	μA
		V <sub>CB</sub> =80V, I <sub>E</sub> =0	TIP100/105	50	μA
		V <sub>CB</sub> =100V, I <sub>E</sub> =0	TIP101/106 TIP102/107	50	μA
Emitter Cut Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0		8.0	mA
Collector Emitter (sus) Voltage	*V <sub>CEO(sus)</sub>	I <sub>C</sub> =30mA, I <sub>B</sub> =0			V
			TIP100/105	60	V
			TIP101/106 TIP102/107	80 100	V
Collector Emitter Saturation Voltage	*V <sub>CE(sat)</sub>	I <sub>C</sub> =3A, I <sub>B</sub> =6mA		2.0	V
		I <sub>C</sub> =8A, I <sub>B</sub> =80mA		2.5	V
Base Emitter On Voltage	*V <sub>BE(on)</sub>	I <sub>C</sub> =8A, V <sub>CE</sub> =4V		2.8	V
DC Current Gain	*h <sub>FE</sub>	I <sub>C</sub> =3A, V <sub>CE</sub> =4V	1,000	20,000	
		I <sub>C</sub> =8A, V <sub>CE</sub> =4V	200		
Forward Voltage of Commutation Diode	*V <sub>F</sub>	I <sub>F</sub> =I <sub>C</sub> =10A, I <sub>B</sub> =0		6.0	V

\*Pulse Test : Pulse Width=300ms, Duty Cycle ≤ 2%

TIP100	TIP105
TIP101	TIP106
TIP102	TIP107
NPN	PNP

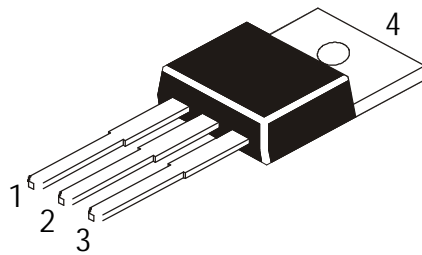
### TO-220 Plastic Package

#### 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	

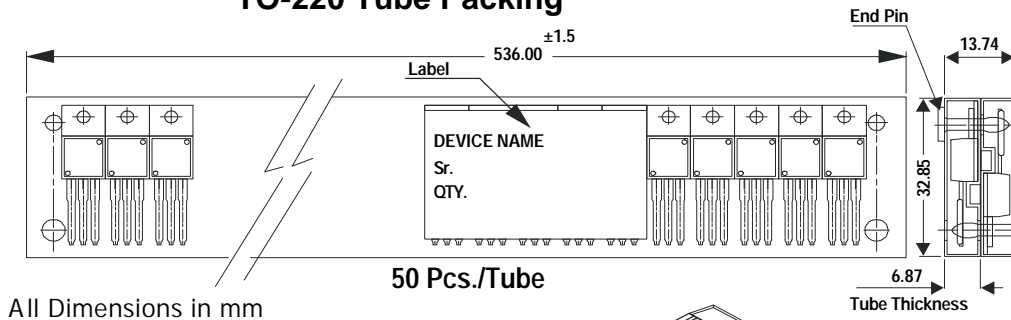
All dimensions in mm.



#### Pin Configuration

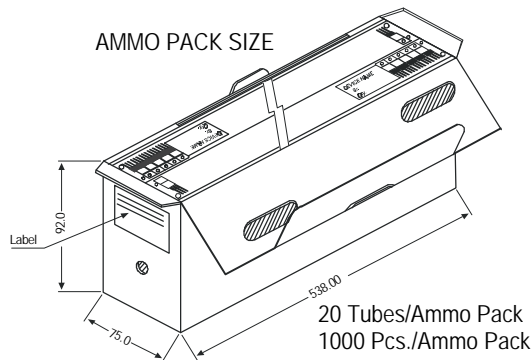
1. Base
2. Collector
3. Emitter
4. Collector

#### TO-220 Tube Packing



50 Pcs./Tube

AMMO PACK SIZE



#### Packing Details

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

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