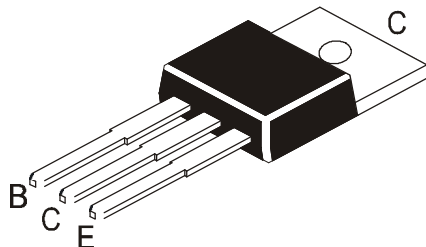


PLASTIC POWER TRANSISTORS



TIP130	TIP135
TIP131	TIP136
TIP132	TIP137
NPN	PNP

TO-220
Plastic Package

Intended for use in Linear and Switching Applications

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

DESCRIPTION	SYMBOL	TIP130/135	TIP131/136	TIP132/137	UNIT
Collector Emitter Voltage	V_{CEO}	60	80	100	V
Collector Base Voltage	V_{CBO}	60	80	100	V
Emitter Base Voltage	V_{EBO}	5.0			V
Collector Current Continuous	I_C	8.0			A
Collector Current Peak	I_{CM}	12			A
Base Current	I_B	0.3			A
Power Dissipation upto $T_c=25^\circ\text{C}$	P_D	70			W
Power Dissipation upto $T_a=25^\circ\text{C}$ Derate above 25°C	P_D	2.0 16			W mW/ $^\circ\text{C}$
Operating And Storage Junction Temperature	T_j, T_{stg}	- 65 to +150			$^\circ\text{C}$

THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	1.78	$^\circ\text{C/W}$
Junction to Ambient in free air	$R_{th(j-a)}$	62.5	$^\circ\text{C/W}$

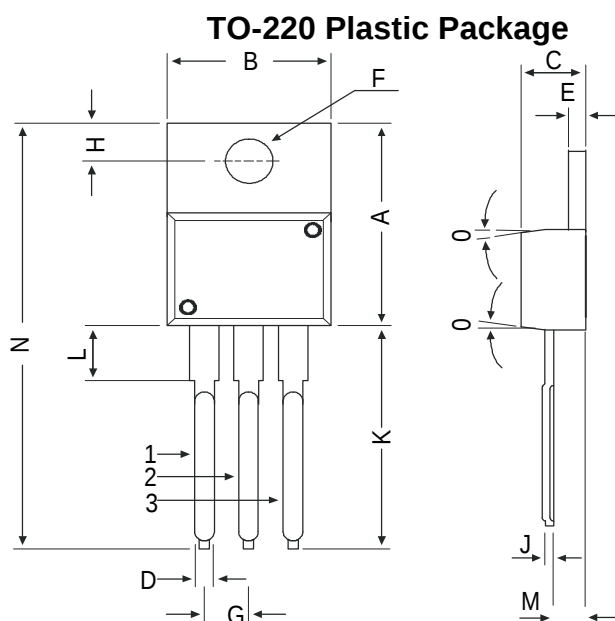
ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cut off Current	I_{CEO}	$V_{CE} = \text{Half Rated } V_{CEO}$		0.5	mA
Collector Cut off Current	I_{CBO}	$V_{CB} = \text{Rated } V_{CBO}$		0.2	mA
Emitter Cut off Current	I_{EBO}	$V_{EB}=5V, I_C=0$		5.0	mA
Collector Emitter (sus) Voltage	$*V_{CEO(sus)}$	$I_C=30mA, I_B=0$	TIP130/135	60	V
			TIP131/136	80	V
			TIP132/137	100	V
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=4A, I_B=16mA$		2.0	V
		$I_C=6A, I_B=30mA$		3.0	V
Base Emitter on Voltage	$*V_{BE(on)}$	$I_C=4A, V_{CE}=4V$		2.5	V
DC Current Gain	$*h_{FE}$	$I_C=1A, V_{CE}=4V$	500		
		$I_C=4A, V_{CE}=4V$	1,000	15,000	

*Pulse Test : Pulse width $\leq 300ms$, Duty Cycle $\leq 2\%$

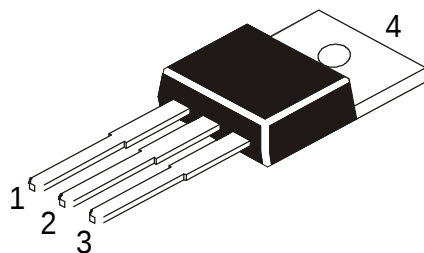
TIP130	TIP135
TIP131	TIP136
TIP132	TIP137
NPN	PNP

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	

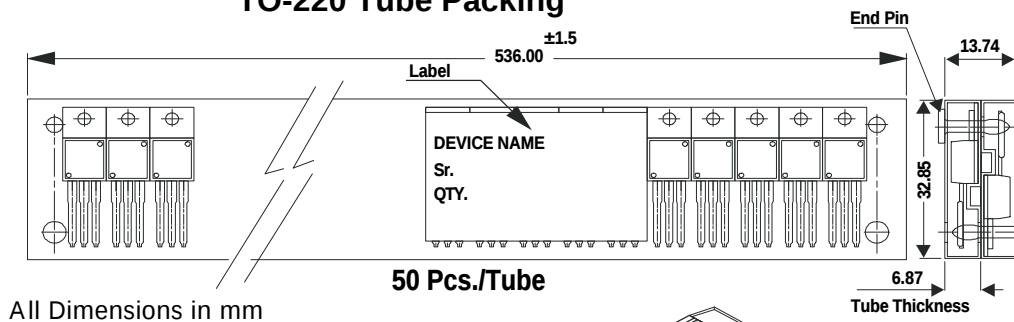
All diminsions in mm.



Pin Configuration

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

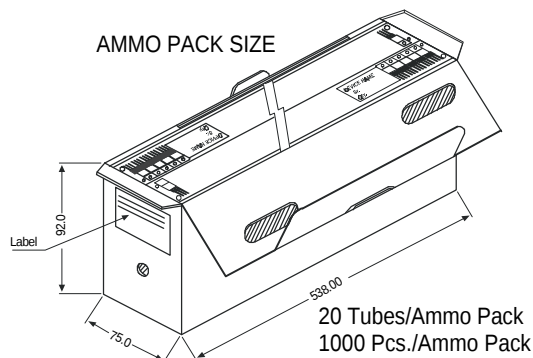
TO-220 Tube Packing



50 Pcs./Tube

All Dimensions in mm

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