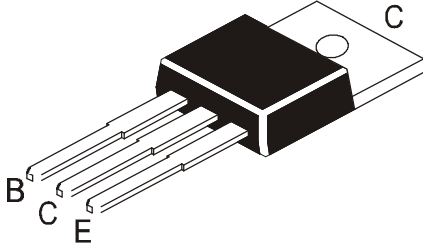




PLASTIC POWER TRANSISTORS



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	$*V_{CEO(sus)}$	$I_C=30\text{mA}, I_B=0$	TIP130/135	60	V
			TIP131/136	80	V
			TIP132/137	100	V
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=4A, I_B=16\text{mA}$		2.0	V
		$I_C=6A, I_B=30\text{mA}$		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	

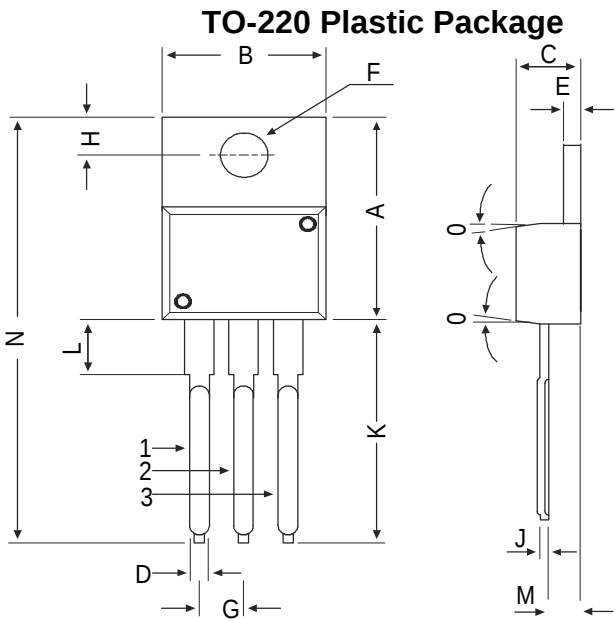
*Pulse Test : Pulse width $\leq 300\text{ms}$, Duty Cycle $\leq 2\%$

TIP130
TIP131
TIP132
NPN

TIP135
TIP136
TIP137
PNP

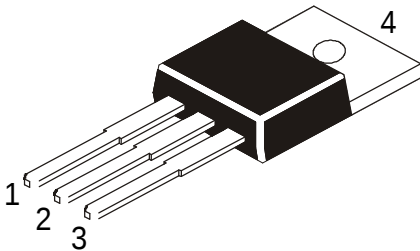
TO-220

Plastic Package

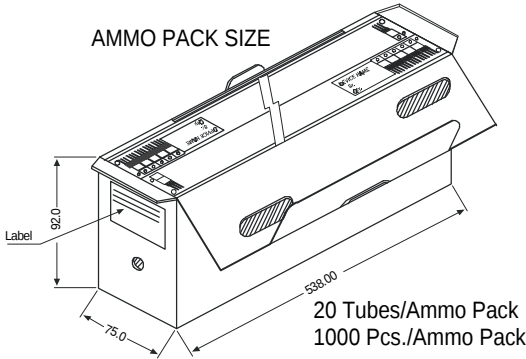
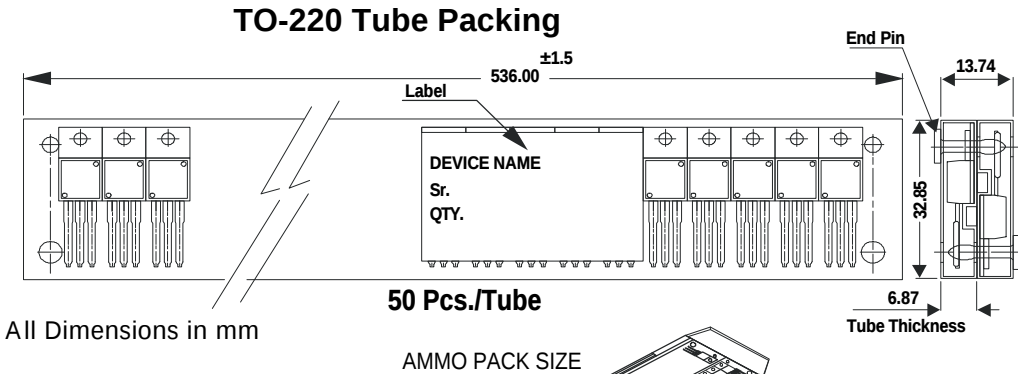


DIM	MIN	MAX
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	—	0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	—	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	—	31.24
O	7 DEG	

All diminsions in mm.



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



Packing Detail

PACKAGE	STANDARDPACK		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