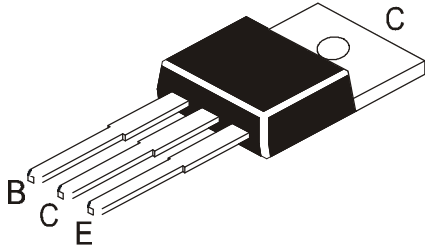


DARLINGTON
PLASTIC POWER TRANSISTORS

TIP110	TIP115
TIP111	TIP116
TIP112	TIP117
NPN	PNP

TO-220
Plastic Package



Intended for use in Medium Power Linear and Switching Applications

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

DESCRIPTION	SYMBOL	TIP110/115	TIP111/116	TIP112/117	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		V
Collector Current Continuous	I _C		2		A
Collector Current Peak	I _{CM}		4		A
Base Current	I _B		50		mA
Power Dissipation upto T _c =25°C	P _D		50		W
Power Dissipation upto T _a =25°C Derate above 25°C	P _D		2 16		W mW/°C
Operating And Storage Junction Temperature	T _j , T _{stg}	-65 to +150			°C

THERMAL RESISTANCE

Junction to Case	R _{th(j-c)}	2.5	°C/W
Junction to Ambient in free air	R _{th(j-a)}	62.5	°C/W

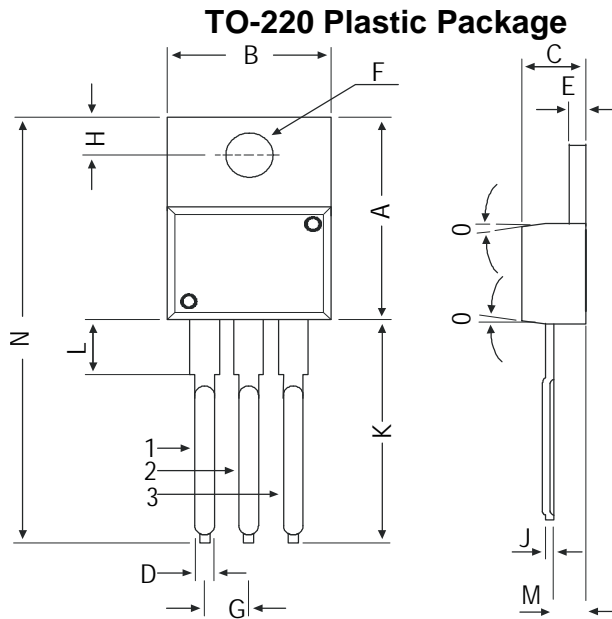
ELECTRICAL CHARACTERISTICS (T_c=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cut Off Current	I _{CEO}	V _{CE} = Half Rated V _{CEO}		2.0	mA
Collector Cut Off Current	I _{CBO}	V _{CB} = Half Rated V _{CBO}		1.0	mA
Emitter Cut Off Current	I _{EBO}	V _{EB} =5V, I _C =0		2.0	mA
Collector Emitter (sus) Voltage	*V _{CEO(sus)}	I _C =30mA, I _B =0	TIP110/115	60	V
			TIP111/116	80	V
			TIP112/117	100	V
Collector Emitter Saturation Voltage	*V _{CE(sat)}	I _C =2A, I _B =8mA		2.5	V
Base Emitter On Voltage	*V _{BE(on)}	I _C =2A, V _{CE} =4V		2.8	V
DC Current Gain	*h _{FE}	I _C =1A, V _{CE} =4V	1,000		
		I _C =2A, V _{CE} =4V	500		

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

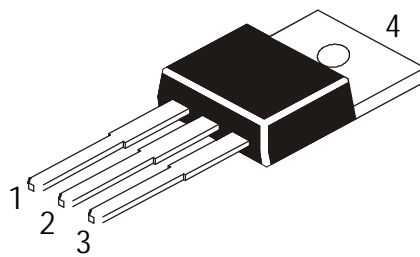
TIP110	TIP115
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TO-220 Plastic Package



DIM	MIN	MAX
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	—	0.90
E	1.15	1.40
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	

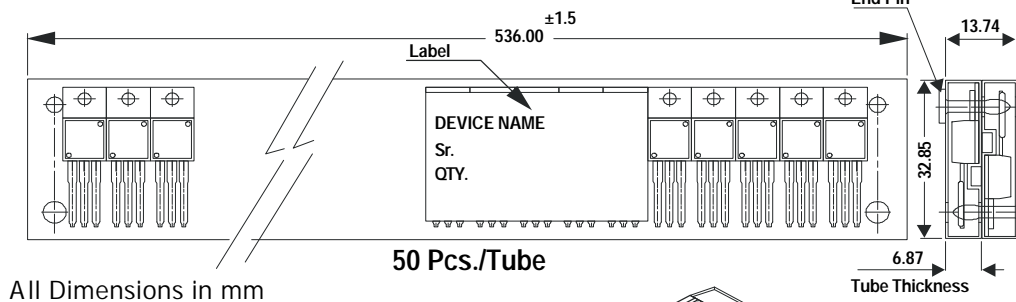
All dimensions in mm.



Pin Configuration

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

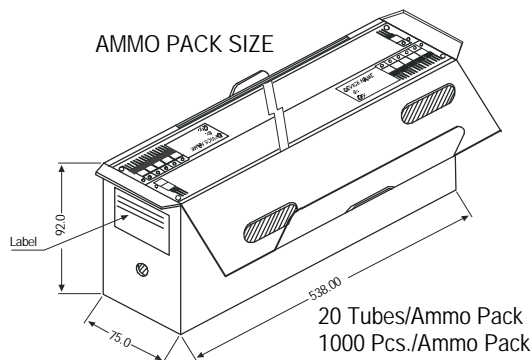
TO-220 Tube Packing



All Dimensions in mm

50 Pcs./Tube

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

Notes

TIP110	TIP115
TIP111	TIP116
TIP112	TIP117
NPN	PNP

TO-220
Plastic Package

Disclaimer

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