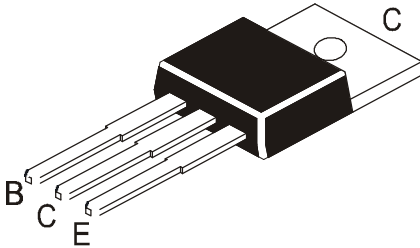


NPN PLASTIC MEDIUM DARLINGTON POWER TRANSISTORS

2N6387
2N6388

TO-220
Plastic Package



Designed for General Purpose Amplifier and Low Speed Switching Applications

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	2N6387	2N6388	UNIT
Collector Emitter Voltage	V_{CEO}	60	80	V
Collector Base Voltage	V_{CBO}	60	80	V
Emitter Base Voltage	V_{EBO}	5.0		V
Collector Current Continuous	I_C	10		A
Collector Current Peak	I_{CM}	15		A
Base Current	I_B	250		mA
Power Dissipation upto $T_c=25^\circ\text{C}$ Derate above 25°C	P_D	65		W
		0.52		W/ $^\circ\text{C}$
Power Dissipation upto $T_a=25^\circ\text{C}$ Derate above 25°C	P_D	2.0		W
		16		mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +150		$^\circ\text{C}$

THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	1.92	$^\circ\text{C/W}$
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	2N6387		2N6388		UNIT
			MIN	MAX	MIN	MAX	
Collector Emitter (sus) Voltage	$*V_{CEO(sus)}$	$I_C=200\text{mA}, I_B=0$	60		80		V
Collector Cut Off Current	I_{CEO}	$V_{CE}=60\text{V}, I_B=0$ $V_{CE}=80\text{V}, I_B=0$		1.0		1.0	mA mA
Collector Cut Off Current	I_{CEX}	$V_{CE}=60\text{V}, V_{EB(Off)}=1.5\text{V}$		300			μA
		$V_{CE}=80\text{V}, V_{EB(Off)}=1.5\text{V}$				300	μA
		$V_{CE}=60\text{V}, V_{EB(Off)}=1.5\text{V}, T_C=125^\circ\text{C}$		3.0			mA
		$V_{CE}=80\text{V}, V_{EB(Off)}=1.5\text{V}, T_C=125^\circ\text{C}$				3.0	mA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$	<5.0				mA
DC Current Gain	$*h_{FE}$	$I_C=5\text{A}, V_{CE}=3\text{V}$	1000 - 20,000				
		$I_C=10\text{A}, V_{CE}=3\text{V}$	>100				
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=5\text{A}, I_B=0.01\text{A}$	<2.0				V
		$I_C=10\text{A}, I_B=0.1\text{A}$	<3.0				V
Base Emitter on Voltage	$*V_{BE(on)}$	$I_C=5\text{A}, V_{CE}=3\text{V}$	<2.8				
		$I_C=10\text{A}, V_{CE}=3\text{V}$	<4.5				V

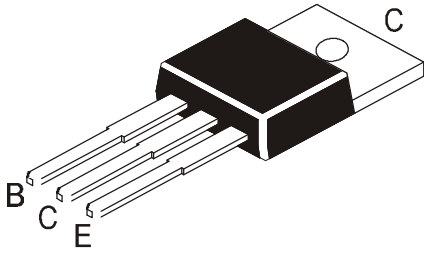
*Pulse Test : Pulse width $\leq 300\text{ms}$, Duty Cycle $\leq 2\%$

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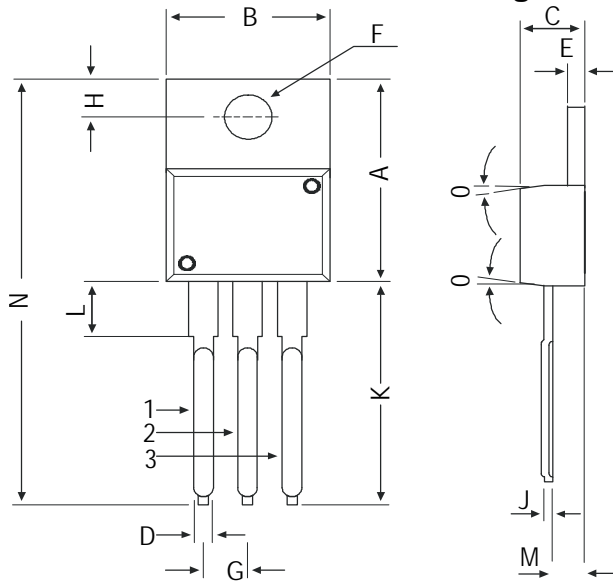
ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless specified otherwise)

DYNAMIC CHARACTERISTIC

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Small Signal Current Gain	$ h_{fe} $	$I_C=1\text{A}, V_{CE}=5\text{V}, f=1\text{MHz}$	20		
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$		200	pF
Small Signal Current Gain	h_{fe}	$I_C=1\text{A}, V_{CE}=5\text{V}, f=1\text{kHz}$	1000		

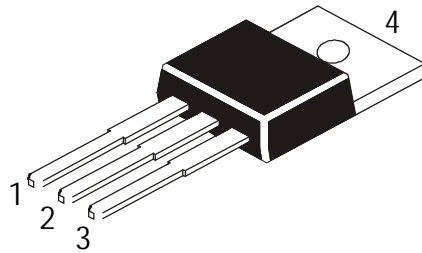
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TO-220 Plastic Package



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	

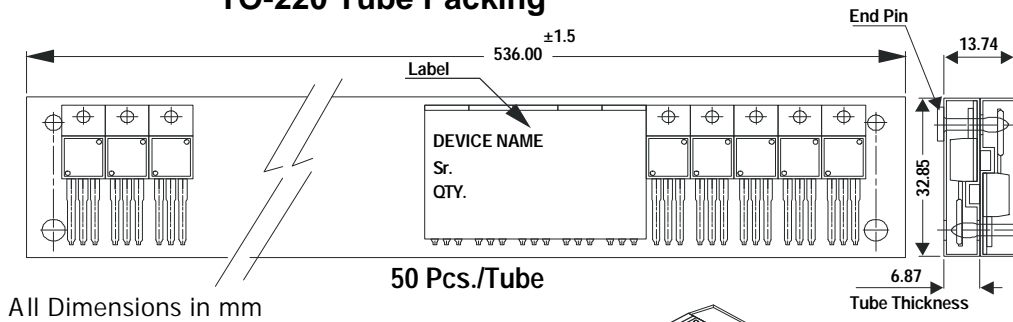
All dimensions in mm.



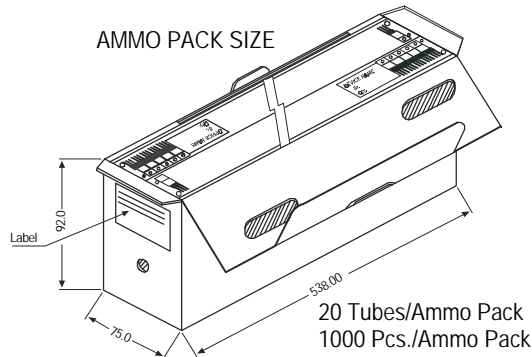
Pin Configuration

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

TO-220 Tube Packing



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 /FP	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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