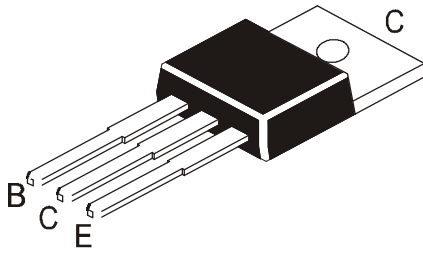


NPN PLANAR POWER DARLINGTON TRANSISTOR

CSD1025



**TO-220
Plastic Package**

Power Darlington for use in Linear Switching Applications

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	200	V
Collector Emitter Voltage	V_{CEO}	150	V
Emitter Base Voltage	V_{EBO}	7.0	V
Collector Current DC	I_C	8.0	A
Collector Current Peak	I_{CP}	12.0	A
Base Current DC	I_B	0.5	A
Base Current Peak	I_{BP}	1.0	A
Power Dissipation @ $T_c=25^\circ\text{C}$	P_D	50	W
Junction Temperature	T_j	+150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	2.5	$^\circ\text{C/W}$
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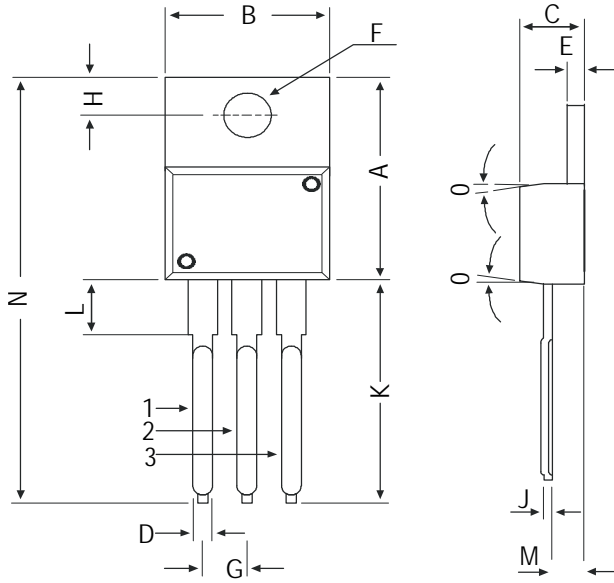
ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut Off Current	I_{CBO}	$V_{CB}=200\text{V}, I_E=0$			0.1	mA
	I_{CEO}	$V_{CE}=150\text{V}, I_B=0$			0.1	mA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=7\text{V}, I_C=0$			5.0	mA
DC Current Gain	h_{FE}	$V_{CE}=3\text{V}, I_C=5\text{A}$	1,500		30,000	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5\text{A}, I_B=10\text{mA}$			1.5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=5\text{A}, I_B=10\text{mA}$			2.0	V
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=0.8\text{A}$		50		MHz

SWITCHING TIME

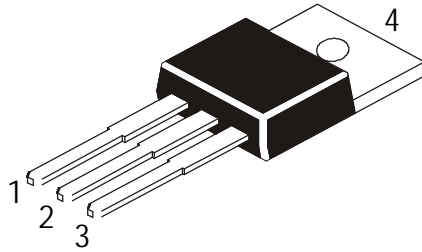
Turn On Time	t_{on}	$I_{B1}=I_{B2}=10\text{mA}, I_C=5\text{A},$ $R_L=5\Omega, V_{BB2}=4\text{V}$			2	μs
Storage time	t_s				8	μs
Fall Time	t_f				5	μs

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	

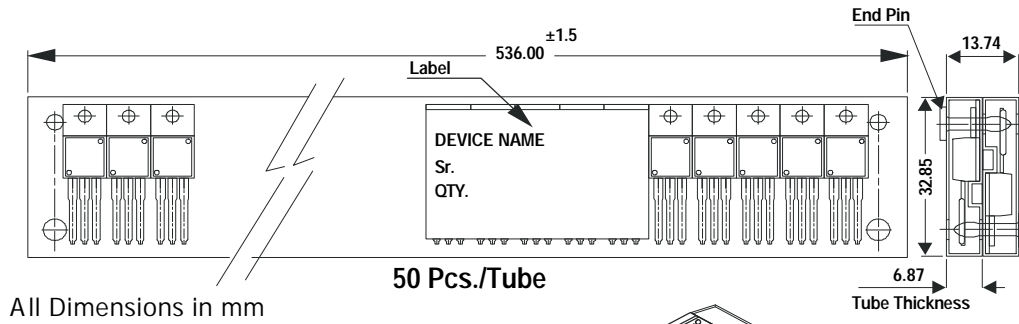
All diminsions in mm.



Pin Configuration

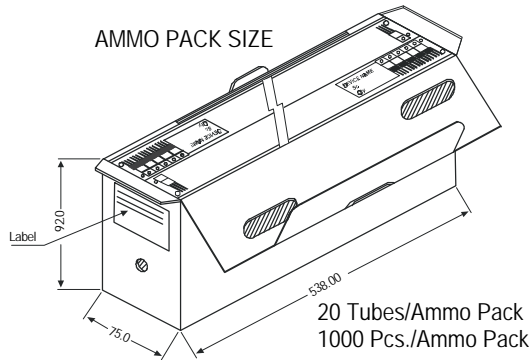
1. Base
2. Collector
3. Emitter
4. Collector

TO-220 Tube Packing



50 Pcs./Tube

AMMO PACK SIZE



20 Tubes/Ammo Pack
1000 Pcs./Ammo Pack

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

Disclaimer

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