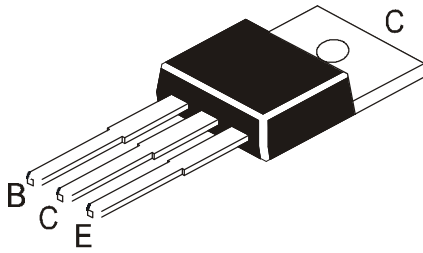


NPN PLASTIC POWER TRANSISTOR

SJE1349



TO-220
Plastic Package

Power Linear and Switching Applications

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	73	V
Collector Emitter Voltage	V_{CEO}	63	V
Emitter Base Voltage	V_{EBO}	7	V
Collector Current	I_C	6	A
Collector Current Peak	I_{CM}	10	A
Base Current Continuous	I_B	2	A
Power Dissipation upto $T_c=25^\circ\text{C}$	P_D	65	W
Operating And Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +150	$^\circ\text{C}$

THERMAL RESISTANCE

Junction to Ambient in free air	$R_{th(j-a)}$	62.5	$^\circ\text{C/W}$
Junction to Case	$R_{th(j-c)}$	1.92	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ Unless Specified Otherwise)

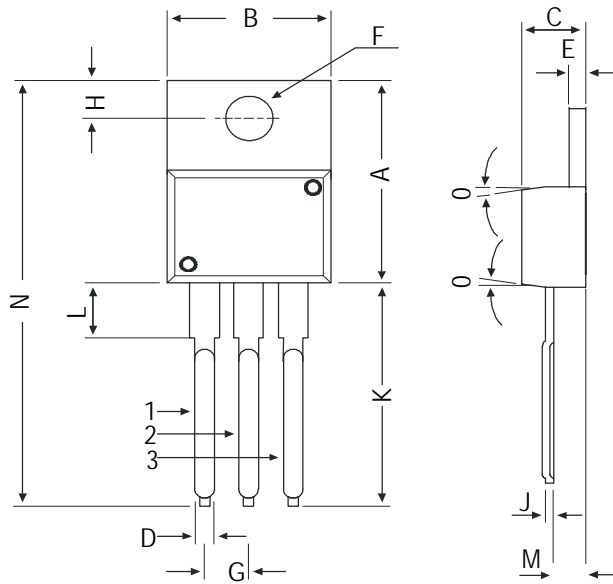
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Emitter (sus) Voltage	$*V_{CEO(sus)}$	$I_C=30\text{mA}, I_B=0$	63			V
Collector Cut Off Current	I_{CBO}	$V_{CB}=63\text{V}, I_E=0$			0.3	mA
Collector Cut Off Current	I_{CES}	$V_{CE}=73\text{V}, V_{BE}=0$			0.3	mA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=5.2\text{V}, I_C=0$			0.9	mA
DC Current Gain	$*h_{FE}$	$I_C=4\text{A}, V_{CE}=4\text{V}$	43		100	
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=4\text{A}, I_B=480\text{mA}$			1.07	V
		$I_C=10\text{A}, I_B=1\text{A}$			3.0	V

Switching Time

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Small Signal Current	h_{fe}	$I_C=0.5\text{A}, V_{CE}=10\text{V}, f=1\text{KHz}$	20			
Transition Frequency	f_T	$I_C=0.5\text{A}, V_{CE}=10\text{V}, f=1\text{MHz}$	3			MHz

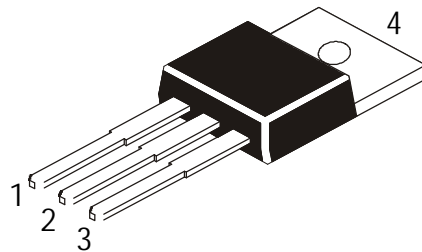
*Pulse test $t_p \leq 300\text{ms}$, Duty cycle $\leq 2\%$

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	

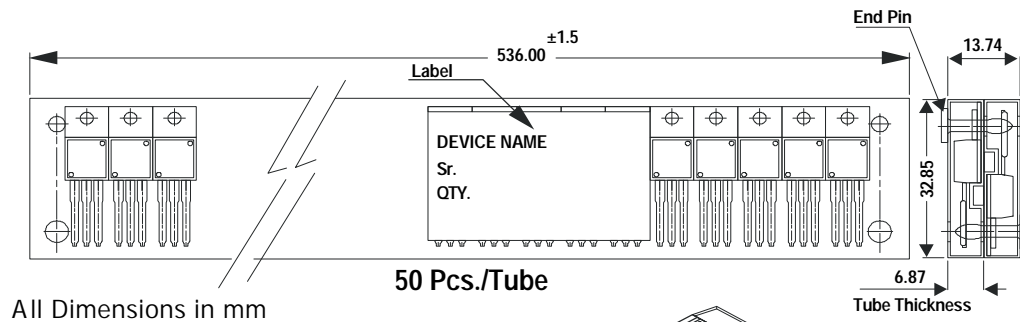
All dimensions in mm.



Pin Configuration

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

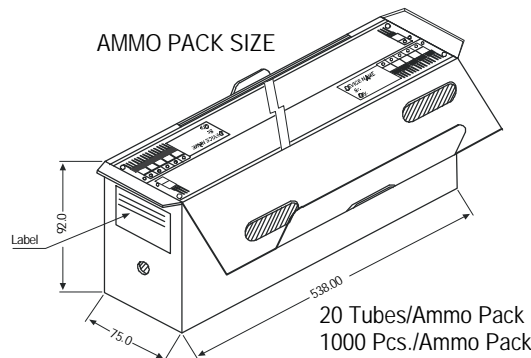
TO-220 Tube Packing



All Dimensions in mm

50 Pcs./Tube

AMMO PACK SIZE



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

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdilsemi.com