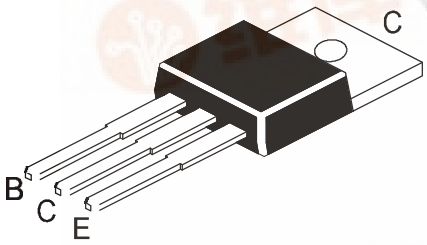
Continental Device India Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

NPN PLASTIC POWER TRANSISTOR

CJE13007

TO-220
Plastic Package



Used in Energy Saving Lights and Power Switching Circuits

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	700	V
Collector Emitter Voltage	V_{CEO}	400	V
Emitter Base Voltage	V_{EBO}	9	V
Collector Current Continuous	I_C	8	A
Power Dissipation upto T_a=25ºC	P_D	2	W
Power Dissipation upto T_c=25ºC	P_D	80	W
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 55 to +150	ºC

ELECTRICAL CHARACTERISTICS (T_c=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut Off Current	I_{CBO}	V_{CB}=700V, I_E=0			1.0	mA
Emitter Cut Off Current	I_{EBO}	V_{EB}=9V, I_C=0			1.0	mA
DC Current Gain	*h_{FE}	I_C=2A, V_{CE}=5V	8		40	
Ratio Between h_{FE1} of Low Current and h_{FE2} of High Current	h_{FE1}/h_{FE2}	h_{FE1} I_C=5mA, V_{CE}=5V h_{FE2} I_C=2A, V_{CE}=5V	0.75			
Collector Emitter Saturation Voltage	*$V_{CE\ (sat)}$	I_C=5A, I_B=1A			1.5	V
Base Emitter Saturation Voltage	*$V_{BE\ (sat)}$	I_C=5A, I_B=1A			1.5	V
Transition Frequency	f_T	V_{CE}=10V, I_C=500mA, f=1MHz	4			MHz

Switching Time

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Fall Time	t_f	I_C=2A, I_{B1}= -1_{B2}=0.4A			0.8	µs
Storage Time	t_s	V_{CC}=120V			3.6	µs

*h_{FE} Classification	A : 08 - 25	B : 20 - 40
	CJE 13007A XX	CJE 13007B XX

*Pulse test t_p ≤300ms, duty cycle ≤2%

CJE13007Rev_1 110306E

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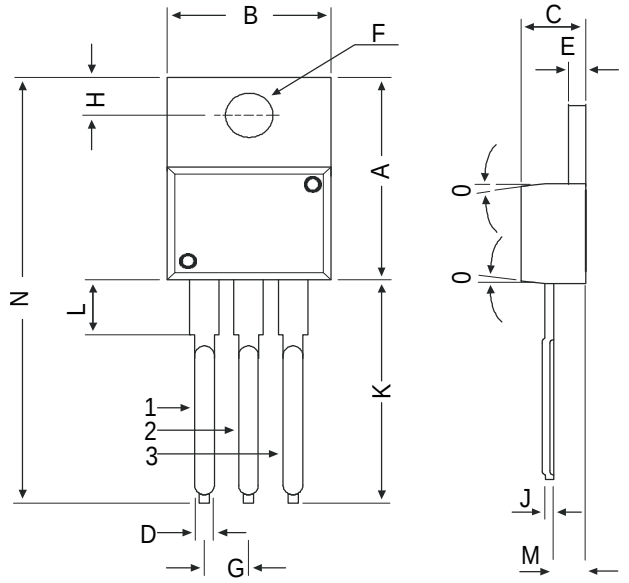
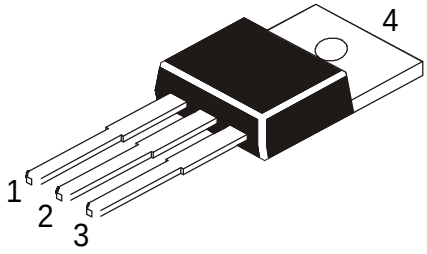


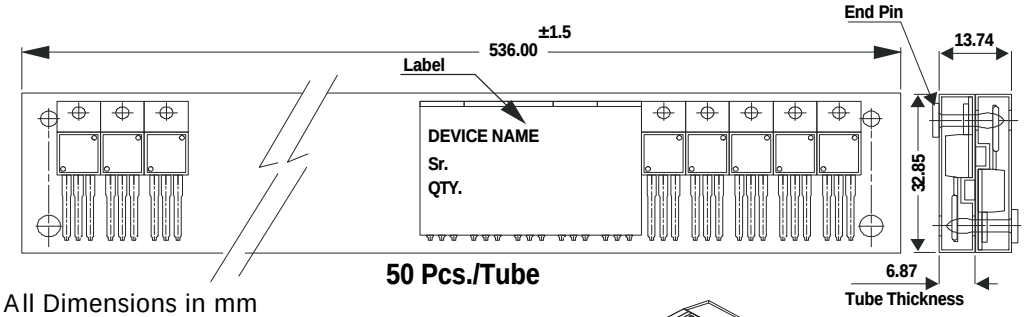
DIM	MIN	MAX
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	—	0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	—	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	—	31.24
O	7 DEG	

All diminsions in mm.



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

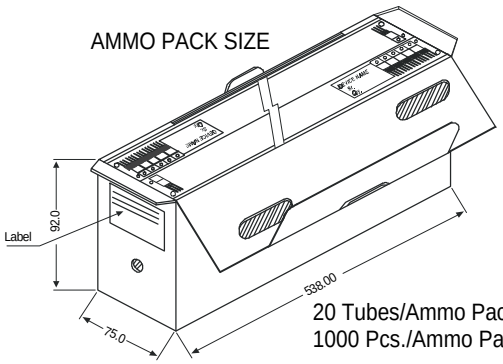
TO-220 Tube Packing



50 Pcs./Tube

All Dimensions in mm

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 50 pcs/tube	396 gm/200 pcs 120 gm/50 pcs	3" x 7.5" x 7.5" 3.5" x 3.7" x 21.5"	1.0K 1.0K	17" x 15" x 13.5" 19" x 19" x 19"	16.0K 10.0K	36 kgs 29 kgs

Customer Notes

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Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

CDIL is a registered Trademark of
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