

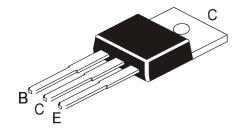
Continental Device India Limited

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	А
Power Dissipation upto T _a =25°C	P _D	2	W
Power Dissipation upto T _c =25°C	P _D	80	W
Operating and Storage Junction Temperature Range	$T_{j,}T_{stg}$	- 55 to +150	°C

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

ELECTRICAL CHARACTERICTICS (16-20 Canics specified chief wise)							
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT	
Collector Cut Off Current	I _{CBO}	V_{CB} =700V, I_{E} =0			1.0	mΑ	
Emitter Cut Off Current	I _{EBO}	$V_{EB}=9V, I_{C}=0$			1.0	mΑ	
DC Current Gain	*h _{FE}	$I_C=2A$, $V_{CE}=5V$	8		40		
Ratio Between h _{FE1} of Low Current and	h /h	$h_{FE1} I_C = 5mA, V_{CE} = 5V$	0.75				
h _{FE2} of High Current	h _{FE1} /h _{FE2}	$h_{FE2} I_C=2A, V_{CE}=5V$	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)}	Ι _C =5Α, Ι _Β =1Α			1.5	V	
Transition Frequency	f⊤	$V_{CF}=10V$, $I_{C}=500$ mA, $f=1$ MHz	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

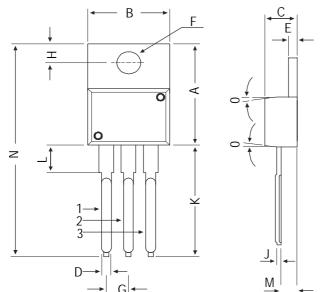
*h _{FE} Classification	A: 08 - 25	B: 20 - 40	
	CJE 13007A	CJE 13007B	
	XX	XX	

^{*}Pulse test $t_p \leq 300$ ms, duty cycle $\leq 2\%$

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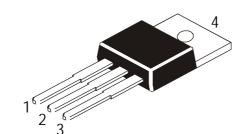
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DIM	MIN	MAX		
Α	14.42	16.51		
В	9.63	10.67		
С	3.56	4.83		
D	_	0.90		
E	1.15	1.40		
F	3.75	3.88		
G	2.29	2.79		
Н	2.54	3.43		
J	_	0.56		
K	12.70	14.73		
L	2.80	4.07		
М	2.03	2.92		
N	_	31.24		
0	7 DEG			

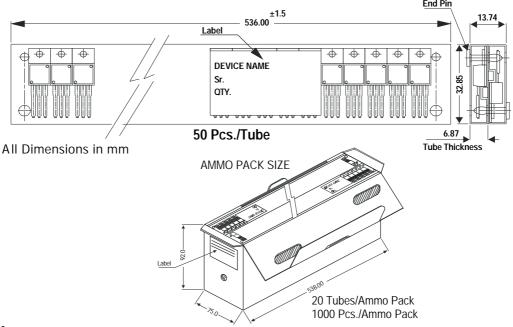
All diminsions in mm.



Pin Configuration

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

TO-220 Tube Packing



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.OK	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.OK	19" x 19" x 19"	10.0K	29 kgs

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Customer Notes CJE13007

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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

The product information and the selection guides facilitate selection of the CDIL's 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 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).

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