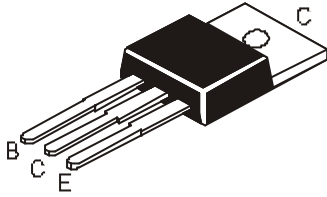


**NPN EPITAXIAL PLANAR SILICON TRANSISTOR**

**CSC2078**

**TO-220  
Plastic Package**



**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	$V_{CBO}$	80	V
Collector Emitter Voltage	$V_{CEO}$	75	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	3	A
Collector Current (Pulse)	$I_{CP}$	5	A
Collector Dissipation	$P_c$	1.2	W
$T_c=50^\circ\text{C}$		10	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to +150	$^\circ\text{C}$

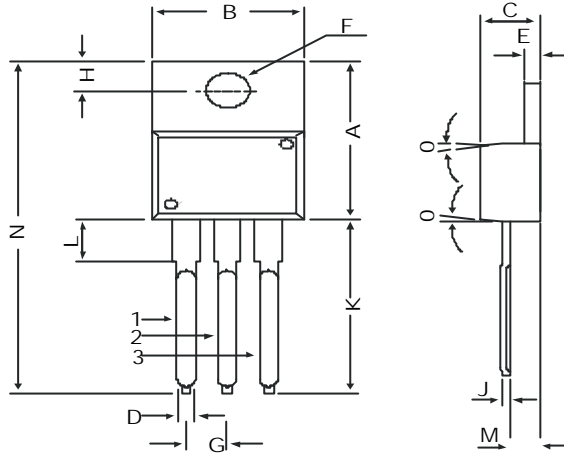
**ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$  unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	$V_{CBO}$	$I_C=100\text{mA}$	80			V
Collector Emitter Breakdown Voltage	$V_{CEO}$	$I_C=1\text{mA}$	75			V
Emitter Base Breakdown Voltage	$V_{EBO}$	$I_E=100\text{mA}$	5			V
Collector Cut Off Current	$I_{CBO}$	$V_{CB}=40\text{V}, I_E=0$			10	mA
Emitter Cut Off Current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$			10	mA
DC Gain	$h_{FE}$	$I_C=0.5\text{A}, V_{CE}=5\text{V}$	25		200	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1\text{A}, I_B=0.1\text{A}$			0.6	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1\text{A}, I_B=0.1\text{A}$			1.2	V

<b>hFE Classification</b>	<b>B ' = (25-50), ' C ' = (40-80), ' D ' = (60-120), ' E ' = (100-200)</b>
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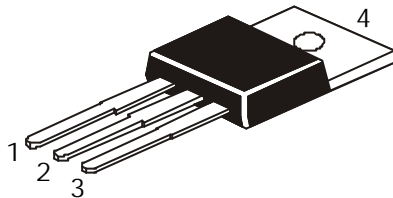
CSC2078 Rev 0\_081111

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	

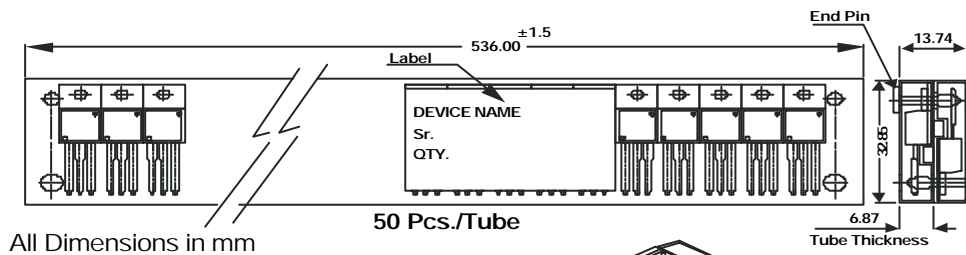
All dimensions in mm.



Pin Configuration

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

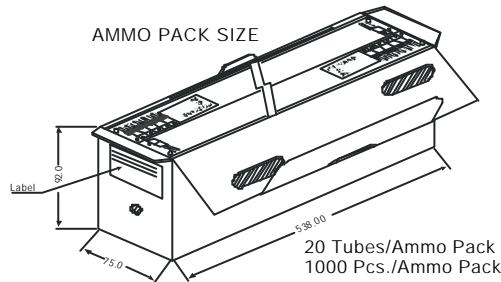
TO-220 Tube Packing



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 / 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

CSC2078 Rev 0\_081111



Continental Device India Limited

An ISO/TS 16949 and ISO 9001 Certified Company

**Customer Notes**



**CSC2078**

**TO-220  
Plastic Package**

### 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).

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CSC2078 Rev 0\_081111