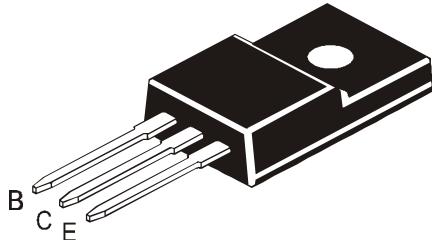


**NPN SILICON PLANAR POWER TRANSISTOR**
**CFD2375**

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	$V_{CBO}$	80	V
Collector Emitter Voltage	$V_{CEO}$	60	V
Emitter Base Voltage	$V_{EBO}$	6	V
RMS Isolation Voltage (for 1sec, R.H. <30%, $T_a = 25^\circ C$ )	** $V_{ISOL}$ (a) (b)	3500 1500	$V_{RMS}$ $V_{RMS}$
Collector Current Peak	$I_{CP}$	6	A
Collector Current	$I_C$	3	A
Base Current	$I_B$	1	A
Collector Power Dissipation @ $T_c=25^\circ C$ @ $T_a=25^\circ C$	$P_C$	25 2	W W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	- 55 to +150	$^\circ C$

\*\* RMS Isolation Voltage: (a) 3500  $V_{RMS}$  with Package in Clip Mounting Position (b) 1500  $V_{RMS}$  with Package in Screw Mounting Position (for 1sec, R.H.<30%,  $T_a=25^\circ C$ ; Pulse Test: Pulse Width  $\leq 300\mu s$ , Duty Cycle  $\leq 2\%$ )

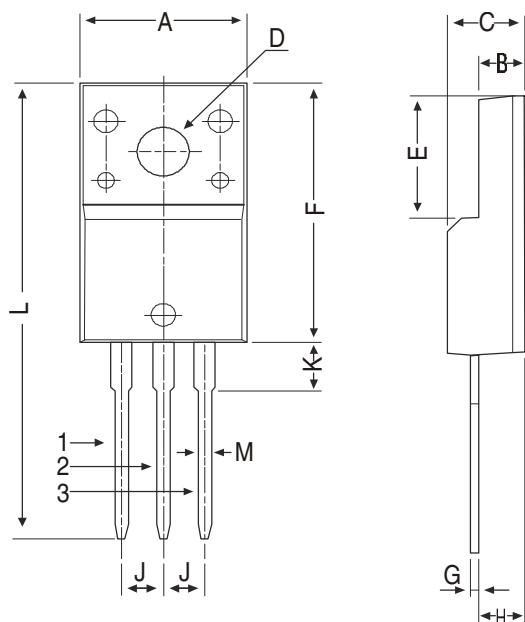
**ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$  unless otherwise specified)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut off Current	$I_{CBO}$	$V_{CB} = 80V$ , $I_E = 0$			100	$\mu A$
Collector Cut off Current	$I_{CEO}$	$V_{CE} = 40V$ , $I_B = 0$			100	$\mu A$
Emitter Cut off Current	$I_{EBO}$	$V_{EB} = 6V$ , $I_C = 0$			100	$\mu A$
Collector Emitter Voltage	$V_{CEO}$	$I_C = 25mA$ , $I_B = 0$	60			V
DC Current Gain	$h_{FE}$	$V_{CE} = 4V$ , $I_C = 0.5A$	500		1500	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2A$ , $I_B = 0.05A$			1	V
Transition Frequency	$f_T$	$V_{CE} = 12V$ , $I_C = 0.2A$ $f = 10MHz$		50		MHz

 **$h_{FE}$  Classification**
**Q : 500 - 1000**
**P : 800 - 1500**

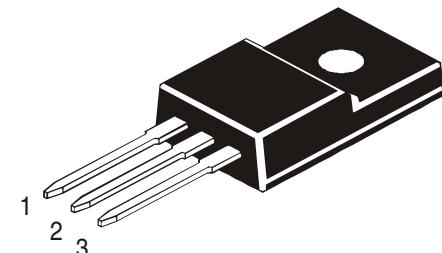
## TO-220FP Fully Isolated Plastic Package

## TO-220FP Fully Isolated Plastic Package



DIM	MIN	MAX
A	9.80	10.36
B	2.50	3.00
C	4.30	4.90
D	3.10	3.40
E	6.50	8.20
F	14.80	17.27
G	0.40	0.70
H	2.50	2.96
J	2.34	2.74
K	—	4.70
L	—	30.05
M	0.6	0.90

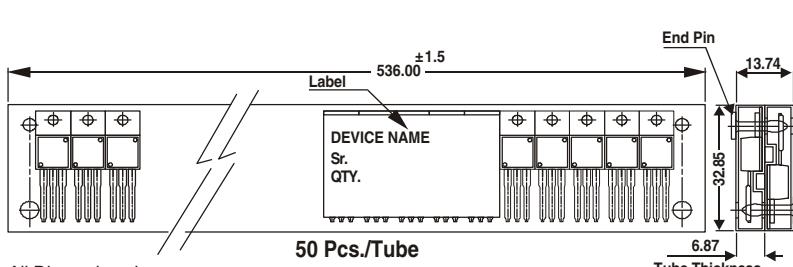
All dimensions in mm.



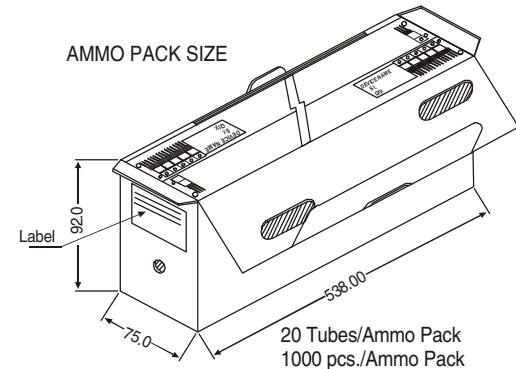
## Pin Configuration

1. Base
2. Collector
3. Emitter

## TO-220 FP Tube Packing



All Dimensions in mm



## Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-220FP	200 pcs/polybag 50 pcs/tube	396 gm/200 pcs 135 gm/50 pcs	3" x 7.5" x 7.5" 3.5" x 3.7" x 21.5"	1K 1K	17" x 15" x 13.5" 19" x 19" x 19"	16K 10K	36 kgs 28 kgs

**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 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.



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