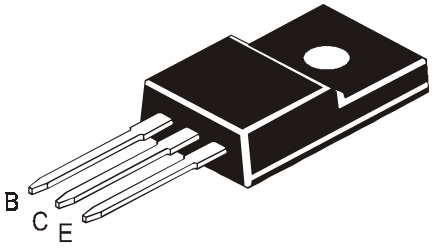
SILICON PLANAR POWER TRANSISTORS

CJF2955 PNP
CJF3055 NPN



TO-220FP Fully Isolated Plastic Package

General Purpose Amplifier and Switching Applications.

ABSOLUTE MAXIMUM RATINGS.

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Emitter (Sustaining) Voltage	$V_{CEO\ (sus)}$	90	V
Collector Emitter Voltage	V_{CES}	90	V
Emitter Base Voltage	V_{EBO}	5	V
RMS Isolation Voltage (for 1sec,R.H.	(1) V_{ISOL} (a)	3500	V_{RMS}
<30%, T_A=25ºC)	(b)	1500	V_{RMS}
Collector Current	I_C	10	A
Base Current	I_B	6	A
Total Power Dissipation @ Tc=25ºC	P_D **	30	W
Derate Above 25ºC		0.25	W/ºC
Total Power Dissipation @ Ta=25ºC	P_D	2	W
Derate Above 25ºC		0.016	W/ºC
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 55 to +150	ºC
THERMAL RESISTANCE			
From Junction to Ambient	$R_{th\ (j-a)}$	62.5	ºC/W
From Junction to Case	$R_{th\ (j-c)}$**	4	ºC/W
Lead Temperature for Soldering Purpose	T_L	260	ºC

****Measurement made with thermocouple contacting the bottom insulated mounting surface (in a location beneath the die), the device mounted on a heatsink with thermal grease and a mounting torque of ≥6 in.lbs.**

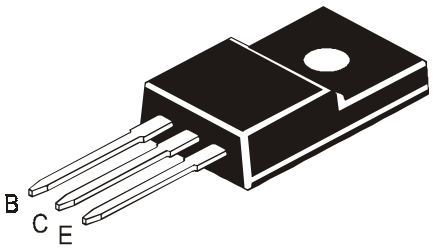
(1) RMS Isolation Voltage : (a) 3500 V_{RMS} with Package in Clip Mounting Position (b) 1500 V_{RMS} with Package in Screw Mounting Position (for 1sec, R.H.<30% ,Ta=25ºC; Pulse Test: Pulse Width ≤300µs, Duty Cycle≤2%)

ELECTRICAL CHARACTERISTICS (Tc=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter sustaining Voltage	$V_{CEO\ (sus)}$ *	I_C=200mA, I_B=0	90		V
Collector Cut off Current	I_{CBO}	V_{CB}=90V, I_E=0		1	µA
	I_{CES}	V_{CE}=90V, V_{BE}=0		1	µA
Emitter Cut off Current	I_{EBO}	V_{EB}=5V, I_C=0		1	µA

SILICON PLANAR POWER TRANSISTORS

CJF2955 PNP
CJF3055 NPN



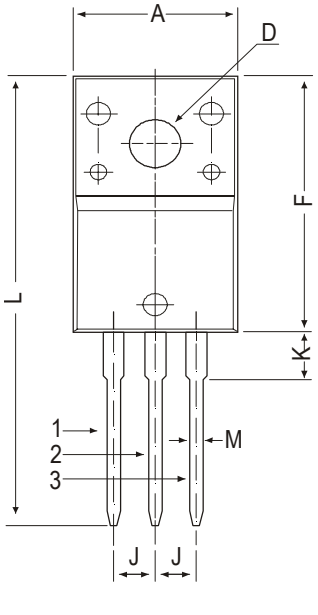
TO-220FP Fully Isolated Plastic Package

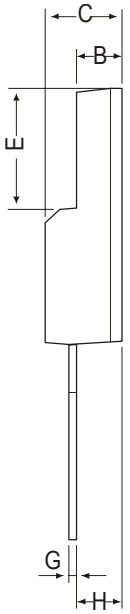
ELECTRICAL CHARACTERISTICS (Tc=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
DC Current Gain	h_{FE} *	I_C=4.0A, V_{CE}=4V	20	100	
		I_C=10A, V_{CE}=4V	5		
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$ *	I_C=4A, I_B=0.4A		1	V
		I_C=10A, I_B=3.3A		2.5	V
Base Emitter on Voltage	$V_{BE(on)}$ *	I_C=4.0A, V_{CE}=4V		1.5	V
DYNAMIC CHARACTERISTICS					
Current Gain - Bandwidth Product	f_T	I_C=500mA, V_{CE}=10V	2		MHz
		f=500kHz			

*** Pulse Test: Pulse Width =5ms, Duty Cycle ≤10 %**

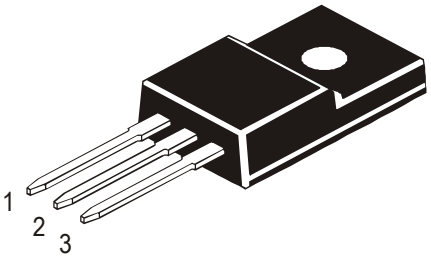
TO-220FP Fully Isolated Plastic Package





DIM	MIN	MAX
A	9.96	10.36
B	2.60	3.00
C	4.50	4.90
D	3.10	3.30
E	7.90	8.20
F	16.87	17.27
G	0.45	0.50
H	2.56	2.96
J	2.34	2.74
K	—	3.08
L	—	30.05
M	—	0.80

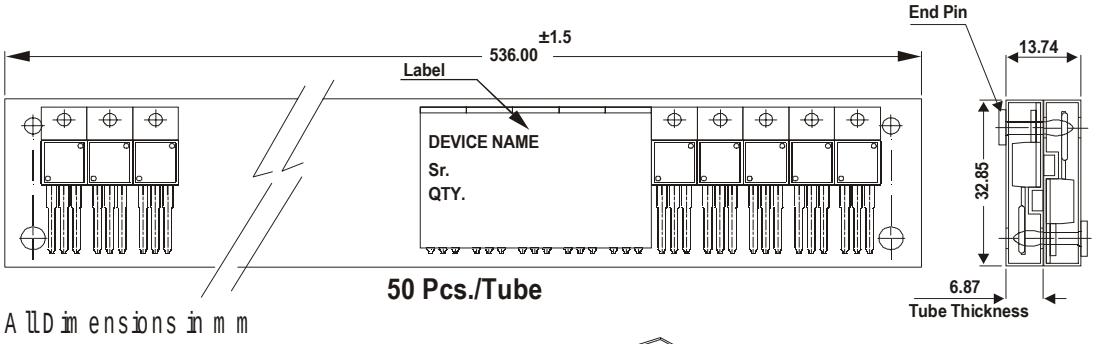
All diminsions in mm.



Pin Configuration

1. Base
2. Collector
3. Emitter

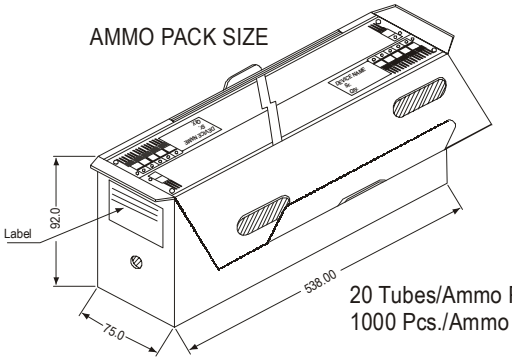
TO-220 FP Tube Packing



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-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

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 is 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