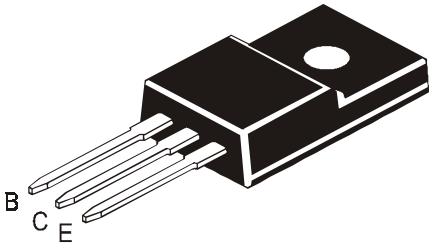
PNP SILICON PLANAR DARLINGTON POWER TRANSISTOR

CJF6668



TO-220FP Fully Isolated Plastic Package

Complementary CJF6388

General Purpose Darlington Amplifier and Switching Applications

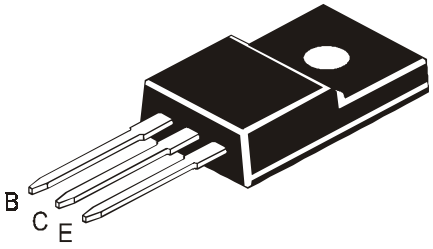
ABSOLUTE MAXIMUM RATINGS.

DESCRIPTION	SYMBOL		VALUE	UNIT
Collector Base Voltage	V_{CBO}		100	V
Collector Emitter Voltage	V_{CEO}		100	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 - Continuous	I_C		10	A
Peak (2)			15	A
Base Current	I_B		1	A
Total Power Dissipation @ Tc=25ºC	P_{D**}		40	W
Derate Above 25ºC			0.31	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}		- 65 to +150	ºC
THERMAL RESISTANCE				
From Junction to Case	$R_{th\ (j-c)**}$		3.2	ºC/W
From Junction to Ambient	$R_{th\ (j-a)}$		62.5	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%)

(2) Pulse Test : Pulse Width =5ms, Duty Cycle≤10%



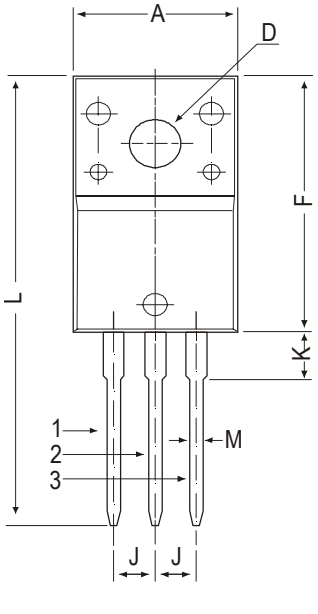
TO-220FP Fully Isolated Plastic Package

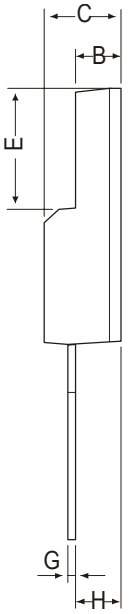
ELECTRICAL CHARACTERISTICS (Tc=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter sustaining Voltage	$V_{CEO\ (sus)}$ *	I_C=30mA, I_B=0	100		V
Collector Cut off Current	I_{CEO}	V_{CE}=80V, I_B=0		10	µA
	I_{CEX}	V_{CE}=100V, V_{EB}(off)=1.5V		10	µA
		T_C=125ºC			
		V_{CE}=100V, V_{EB}(off)=1.5V		3	mA
	I_{CBO}	V_{CB}=100V, I_E=0		10	µA
Emitter Cut off Current	I_{EBO}	V_{EB}=5V, I_C=0		2	mA
DC Current Gain	h_{FE} *	I_C=3A, V_{CE}=4V	3000	15000	
		I_C=5A, V_{CE}=3V	1000		
		I_C=8A, V_{CE}=4V	200		
		I_C=10A, V_{CE}=3V	100		
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$ *	I_C=3A, I_B=6mA		2	V
		I_C=5A, I_B=0.01A		2	V
		I_C=8A, I_B=80mA		2.5	V
		I_C=10A, I_B=0.1A		3	V
Base Emitter Saturation Voltage	$V_{BE(Sat)}$ *	I_C=5A, I_B=0.01A		2.8	V
		I_C=10A, I_B=0.1A		4.5	V
Base Emitter on Voltage	$V_{BE(on)}$ *	I_C=8A, V_{CE}=4V		2.5	V
DYNAMIC CHARACTERISTICS					
Small Signal Current Gain	$\|h_{fe}\|$	I_C=1A, V_{CE}=5V, f=1MHz	20		
Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		300	pF
Small Signal Current Gain	h_{fe}	I_C=1A,V_{CE}=5V, f=1kHz	1000		

*** Pulse Test: Pulse Width ≤300µs, Duty Cycle ≤2 %**

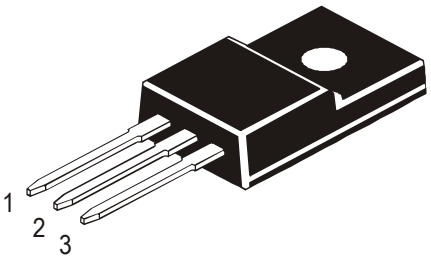
TO-220FP Fully Isolated Plastic Package





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

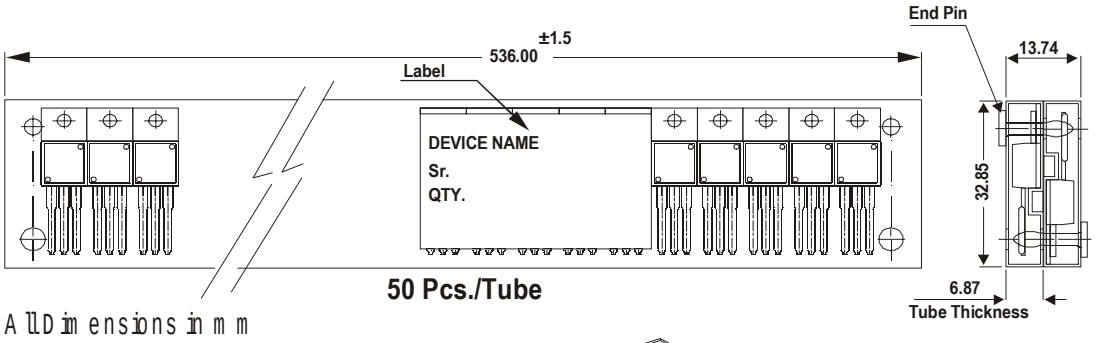
All diminsions in mm.

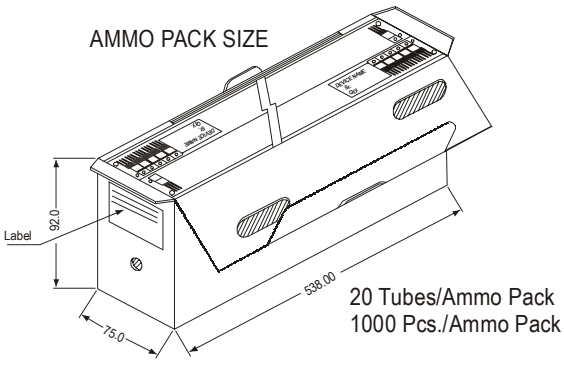


Pin Configuration

1. Base
2. Collector
3. Emitter

TO-220 FP Tube Packing





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

TO-220FP Fully Isolated 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).

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

CJF6668Rev 130901