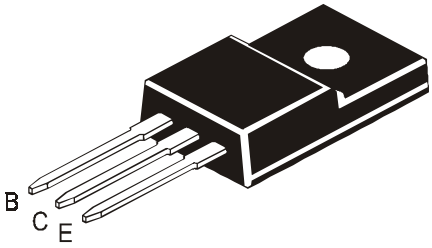
PNP SILICON PLANAR POWER TRANSISTOR

CJF6107



TO-220FP Fully Isolated Plastic Package

General Purpose Amplifier and Switching Applications.

ABSOLUTE MAXIMUM RATINGS.

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	80	V
Collector Emitter Voltage	V_{CEO}	70	V
Emitter Base Voltage	V_{EBO}	5	V
RMS Isolation Voltage (for 1sec,R.H. <30%, T_A=25ºC)	(1) V_{ISOL} (a)	3500	V_{RMS}
	(b)	1500	V_{RMS}
Collector Current - Continuous	I_C	7	A
Peak		10	A
Base Current	I_B	3	A
Total Power Dissipation @ Tc=25ºC	P_{D**}	34	W
Derate Above 25ºC		0.27	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

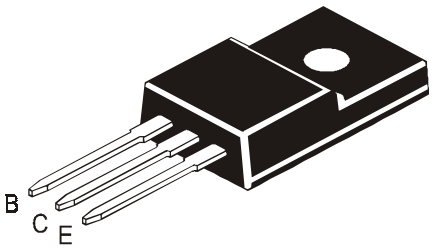
From Junction to Case	$R_{th\ (j\text{-}c)**}$	3.7	ºC/W
From Junction to Ambient	$R_{th\ (j\text{-}a)}$	62.5	ºC/W
Lead Temperature for Soldering Purpose	T_L	260	ºC

****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%)

ELECTRICAL CHARACTERISTICS (Tc=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter sustaining Voltage	$V_{CEO\ (sus)}$ *	I_C=100mA, I_B=0	70		V
Collector Cut off Current	I_{CES}	V_{CE}=80V, I_B=0		1	µA
	I_{CEX}	V_{CE}=80V, V_{EB}(off)=1.5V		1	µA
Emitter Cut off Current	I_{EBO}	V_{EB}=5V, I_C=0		1	µA



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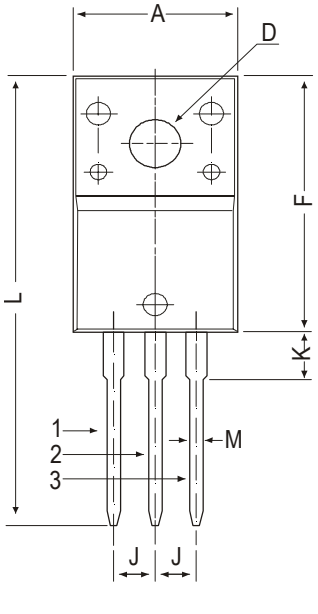
ELECTRICAL CHARACTERISTICS (Tc=25ºC unless specified otherwise)

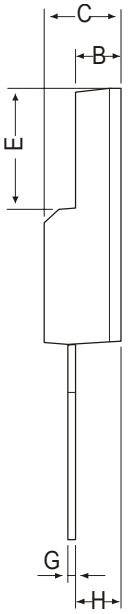
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$ *	I_C=7A, I_B=3A		2	V
Base Emitter on Voltage	$V_{BE(on)}$ *	I_C=7A, V_{CE}=4V		2	V
DC Current Gain	h_{FE} *	I_C=2A, V_{CE}=4V	30	90	
		I_C=7A, V_{CE}=4V	5		
DYNAMIC CHARACTERISTICS					
Small Signal Current Gain	h_{fe}	I_C=0.5A, V_{CE}=4V,f=50kHz	20		
Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		250	pF
Current Gain - Bandwidth Product	$f_{T\,(2)}$	I_C=500mA,V_{CE}=4V,f=1MHz	4		MHz

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

(2) f_T=$|h_{fe}|$.f_T Test

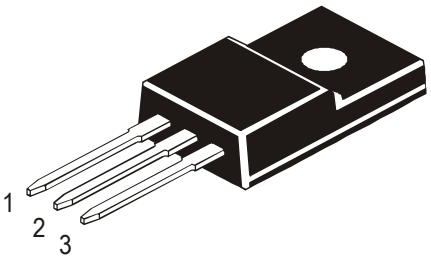
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DIM	MIN	MAX
A	9.96	10.36
B	2.60	3.00
C	4.50	4.90
D	3.10	3.30
E	7.90	8.20
F	16.87	17.27
G	0.45	0.50
H	2.56	2.96
J	2.34	2.74
K	—	3.08
L	—	30.05
M	—	0.80

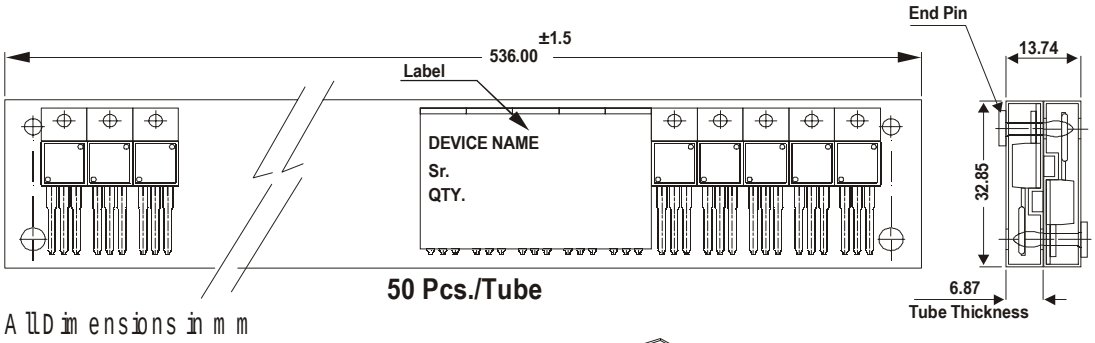
All diminsions in mm.

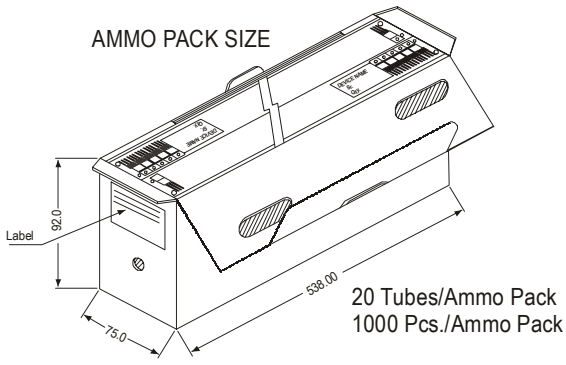


Pin Configuration

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

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Disclaimer

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