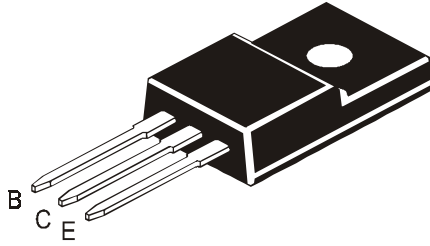


**PNP SILICON PLANAR POWER TRANSISTOR**

**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%, $T_A=25^\circ\text{C}$ )	(1) $V_{ISOL}$ (a)	3500	$V_{RMS}$
	(b)	1500	$V_{RMS}$
Collector Current - Continuous	$I_C$	7	A
		10	A
Peak			
Base Current	$I_B$	3	A
Total Power Dissipation @ $T_c=25^\circ\text{C}$	$P_{D^{**}}$	34	W
Derate Above $25^\circ\text{C}$		0.27	W/ $^\circ\text{C}$
Total Power Dissipation @ $T_a=25^\circ\text{C}$	$P_D$	2	W
Derate Above $25^\circ\text{C}$		0.016	W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	$T_j, T_{stg}$	- 65 to +150	$^\circ\text{C}$

**THERMAL RESISTANCE**

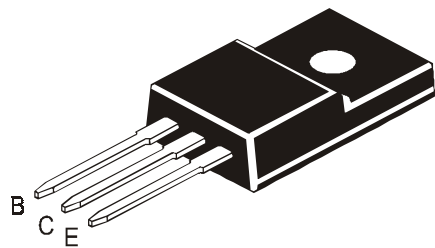
From Junction to Case	$R_{th(j-c)^{**}}$	3.7	$^\circ\text{C/W}$
From Junction to Ambient	$R_{th(j-a)}$	62.5	$^\circ\text{C/W}$
Lead Temperature for Soldering Purpose	$T_L$	260	$^\circ\text{C}$

**\*\*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  $\geq 6$  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% , $T_a=25^\circ\text{C}$ ; Pulse Test: Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$ )**

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

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



TO-220FP Fully Isolated  
Plastic Package

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

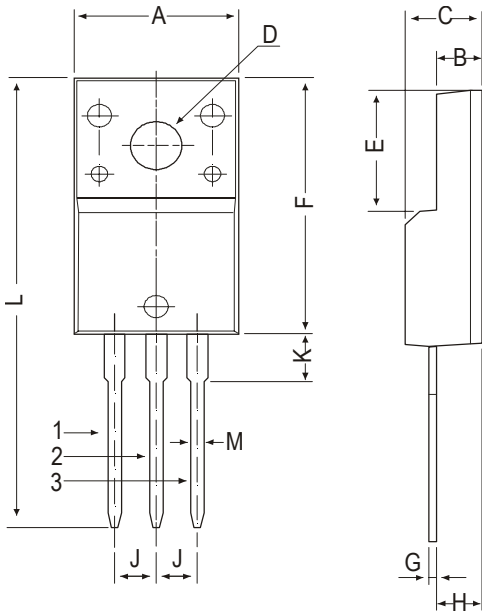
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter Saturation Voltage	$V_{CE(\text{Sat})}^*$	$I_C=7\text{A}, I_B=3\text{A}$		2	V
Base Emitter on Voltage	$V_{BE(\text{on})}^*$	$I_C=7\text{A}, V_{CE}=4\text{V}$		2	V
DC Current Gain	$h_{FE}^*$	$I_C=2\text{A}, V_{CE}=4\text{V}$	30	90	
		$I_C=7\text{A},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

\* Pulse Test: Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$

(2)  $f_T=h_{fe} \cdot f_T$  Test

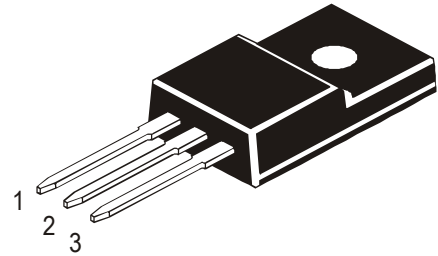
**TO-220FP Fully Isolated Plastic Package**

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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

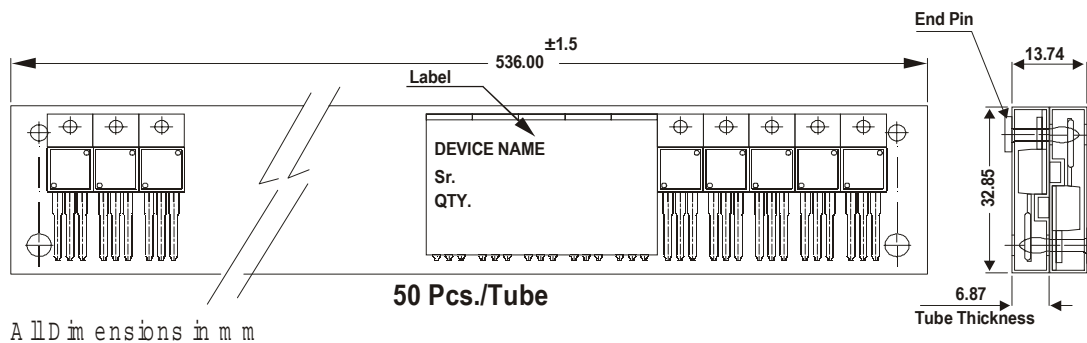
All dimensions in mm.



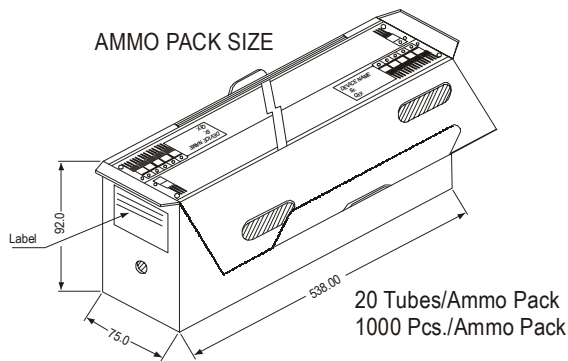
**Pin Configuration**

- 1. Base
- 2. Collector
- 3. Emitter

**TO-220 FP Tube Packing**



**AMMO PACK SIZE**



**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**

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