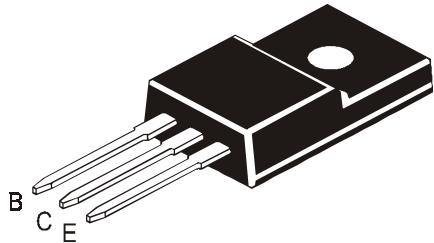


SILICON PLANAR POWER TRANSISTORS



CJF44H11 NPN
CJF45H11 PNP

TO-220FP Fully Isolated
Plastic Package

General Purpose Power Amplification and Switching such as Output or Driver Stages in Applications

ABSOLUTE MAXIMUM RATINGS.

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Emitter Voltage	V_{CEO}	80	V
Emitter Base Voltage	V_{EBO}	5	V
RMS Isolation Voltage (for 1sec, R.H. <30%, $T_A=25^\circ C$)	(1) V_{ISOL} (a) (b)	3500 1500	V_{RMS}
Collector Current -Continuous - Peak	I_C	10 20	A
Total Power Dissipation @ $T_c=25^\circ C$	P_D	50	W
Derate Above $25^\circ C$		1.67	$W/^\circ C$
Total Power Dissipation @ $T_a=25^\circ C$	P_D	2	W
Derate Above $25^\circ C$		0.016	$W/^\circ C$
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 55 to +150	$^\circ C$

THERMAL RESISTANCE

From Junction to Ambient	$R_{th(j-a)}$	62.5	$^\circ C/W$
From Junction to Case	$R_{th(j-c)}$	3.5	$^\circ C/W$

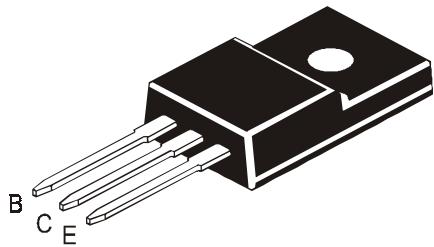
(1) RMS Isolation Voltage : (a) 3500 V_{RMS} with Package in Clip Mounting Position (b) 1500 V_{RMS} with Package in Screw Mounting Position (for 1sec, R.H.<30% , $T_a=25^\circ C$; Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$)

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter sustaining Voltage	$V_{CEO(sus)}$	$I_C=30mA, I_B=0$	80		V
Collector Cut off Current	I_{CES}	$V_{CE}=Rated V_{CEO}, V_{BE}=0$		1	μA
Emitter Cut off Current	I_{EBO}	$V_{EB}=5V, I_C=0$		10	μA
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$	$I_C=8A, I_B=0.4A$		1.85	V
Base Emitter Saturation Voltage	$V_{BE(Sat)}$	$I_C=8A, I_B=0.8A$		1.5	V
DC Current Gain	h_{FE}	$I_C=2A, V_{CE}=1V$ $I_C=4A, V_{CE}=1V$	60 35		

SILICON PLANAR POWER TRANSISTORS

CJF44H11 NPN
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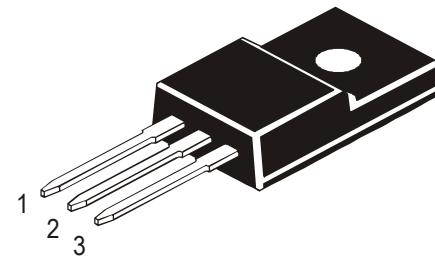
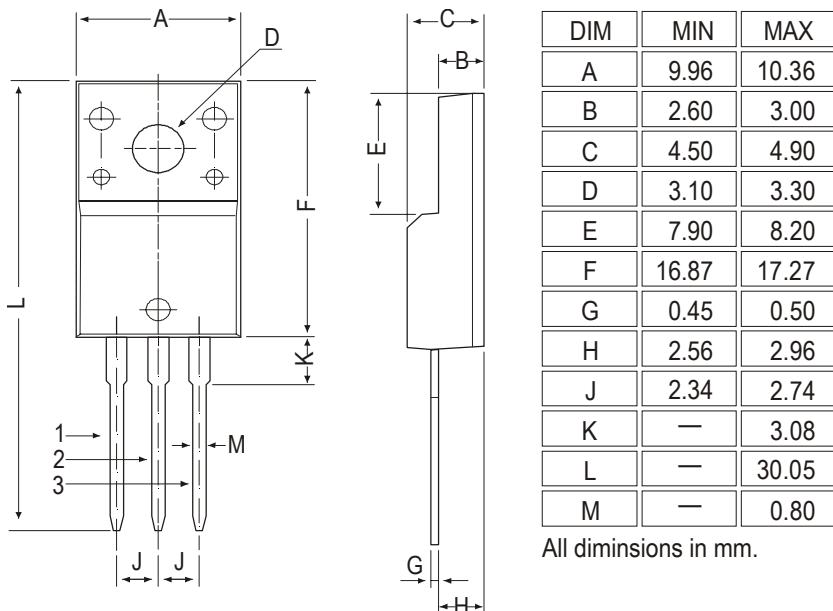
**TO-220FP Fully Isolated
Plastic Package**

ELECTRICAL CHARACTERISTICS (Tc=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
DYNAMIC CHARACTERISTICS					
Collector Capacitance	C _{Ob}	V _{CB} =10V, f _{test} =1MHz CJF44H11 CJF45H11	Typ130	Typ230	pF
Current Gain - Bandwidth Product	f _T	I _C =500mA, V _{CE} =10V, f=20MHz CJF44H11 CJF45H11	Typ50	Typ40	MHz
Switching Times					
Delay and Rise Times	t _d + t _r	I _C =5A, I _{B1} = 0.5A CJF44H11 CJF45H11	Typ300	Typ135	ns
Storage Time	t _s	I _C =5A, I _{B1} = I _{B2} = 0.5A CJF44H11 CJF45H11	Typ500	Typ500	ns
Fall Time	t _f	I _C =5A, I _{B1} = I _{B2} = 0.5A CJF44H11 CJF45H11	Typ140	Typ100	ns

TO-220FP Fully Isolated Plastic Package

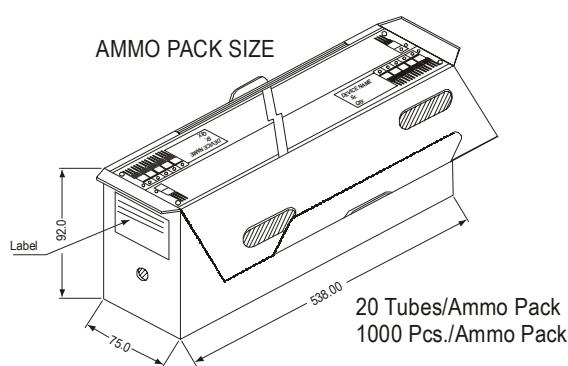
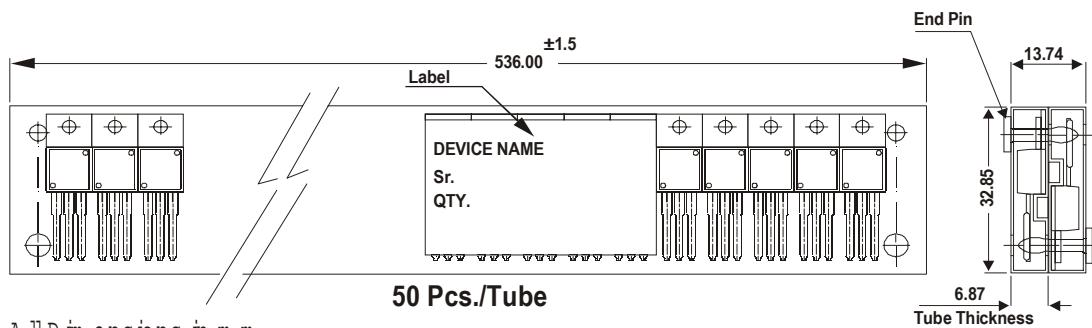
TO-220FP Fully Isolated Plastic Package



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**

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