

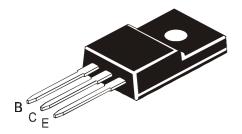
TÜV MANAGEMENT SERVICE



An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

### NPN SILICON PLANAR POWER TRANSISTOR

# CFC2026



TO-220FP Fully Isolated Plastic Package

## **Complementary CFA1046**

### **ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V <sub>CBO</sub>	60	V
Collector Emitter Voltage	V <sub>CEO</sub>	60	V
Emitter Base Voltage	$V_{EBO}$	7.0	V
RMS Isolation Voltage (for 1sec, R.H.	** V <sub>ISOL</sub> (a)	3500	$V_{RMS}$
<30%, T <sub>a</sub> = 25°C)	(b)	1500	$V_{RMS}$
Collector Current	I <sub>C</sub>	3.0	А
Base Current	I <sub>B</sub>	0.5	А
Collector Power Dissipation @T <sub>a</sub> =25°C	P <sub>C</sub>	2.0	W
@T <sub>c</sub> =25°C		25	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	- 55 to 150	۰C

<sup>\*\*</sup> RMS Isolation Voltage: (a) 3500 V<sub>RMS</sub> with Package in Clip Mounting Position (b) 1500 V<sub>RMS</sub> with Package in Screw Mounting Position (for 1sec, R.H.<30%, T<sub>a</sub>=25°C; Pulse Test: Pulse Width ≤300ms, Duty Cycle≤2%)

### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut off Current	I <sub>CBO</sub>	$V_{CB} = 60V, I_{E} = 0$			100	μΑ
Emitter Cut off Current	I <sub>EBO</sub>	$V_{EB}=7V, I_{C}=0$			100	μΑ
Collector Emitter Voltage	V <sub>CEO</sub>	$I_C = 50 \text{mA}, I_B = 0$	60			V
DC Current Gain	*h <sub>FE</sub>	$V_{CE} = 5V, I_{C} = 0.5A$	100		300	
Collector Emitter Saturation Voltage	V <sub>CE(sat)</sub>	$I_C = 2A, I_B = 0.2A$			1	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 5V, I_{C} = 0.5A$			1	V
Transition Frequency	f <sub>T</sub>	$V_{CE} = 5V, I_{C} = 0.5A$		30		MHz
Collector Output Capacitance	$C_ob$	$V_{CB}$ = 10V, $I_E$ =0, f=1MHz		35		pF

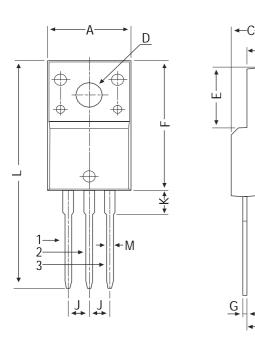
## **Switching Time**

Turn On Time	t <sub>on</sub>	$I_{B1} = I_{B2} = 0.2A$	0.65	μs
Storage Time	t <sub>stg</sub>	$V_{CC} = 30V$	1.30	μs
Fall Time	t <sub>f</sub>	Duty Cycle ≤ 1%	0.65	μs

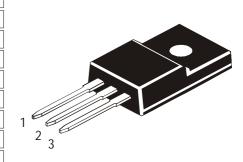
\*h<sub>FE</sub> Classification Y: 100 - 200 GR: 150 - 300

# TO-220FP Fully Isolated Plastic Package

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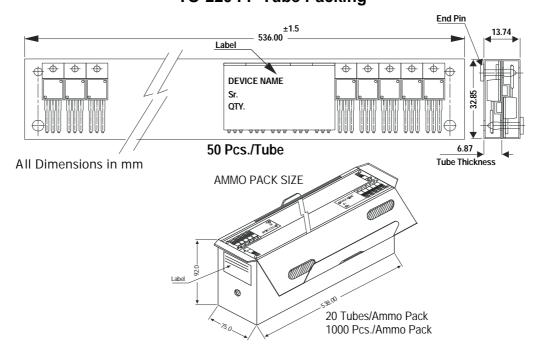
DIM	MIN	MAX			
Α	9.96	10.36			
В	2.60	3.00			
С	4.50	4.90			
D	3.10	3.30			
E	7.90	8.20			
F	16.87	17.27			
G	0.45	0.50			
Н	2.56	2.96			
J	2.34	2.74			
K	_	3.08			
L	_	30.05			
M	_	0.80			
All diminsions in mm.					



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	396 gm/200 pcs	3" x 7.5" x 7.5"	1K	17" x 15" x 13.5"	16K	36 kgs
	50 pcs/tube	135 gm/50 pcs	3.5" x 3.7" x 21.5"	1K	19" x 19" x 19"	10K	28 kgs

Notes CFC2026

TO-220FP Fully Isolated Plastic Package

### **Disclaimer**

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