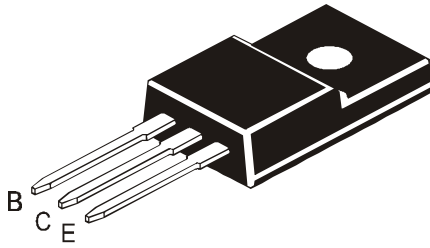


**NPN SILICON PLANAR POWER TRANSISTOR**

**CFD1499**



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

**Complementary CFB1063**

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	$V_{CBO}$	100	V
Collector Emitter Voltage	$V_{CEO}$	100	V
Emitter Base Voltage	$V_{EBO}$	5.0	V
RMS Isolation Voltage (for 1sec, R.H. <30%, $T_a = 25^\circ\text{C}$ )	** $V_{ISOL}$ (a)	3500	$V_{RMS}$
	(b)	1500	$V_{RMS}$
Collector Current Peak	$I_{CP}$	8.0	A
Collector Current	$I_C$	5.0	A
Collector Power Dissipation @ $T_a=25^\circ\text{C}$ @ $T_c=25^\circ\text{C}$	$P_C$	2.0	W
		40	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to 150	$^\circ\text{C}$

\*\* 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  $\leq 300\text{ms}$ , Duty Cycle  $\leq 2\%$ )

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut Off Current	$I_{CBO}$	$V_{CB}=100\text{V}, I_E=0$			50	$\mu\text{A}$
Emitter Cut Off Current	$I_{EBO}$	$V_{EB}=3\text{V}, I_C=0$			50	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE}=5\text{V}, I_C=20\text{mA}$	20			
	* $h_{FE}$	$V_{CE}=5\text{V}, I_C=1\text{A}$	60		200	
	$h_{FE}$	$V_{CE}=5\text{V}, I_C=3\text{A}$	20			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3\text{A}, I_B=0.3\text{A}$			2.0	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=5\text{V}, I_C=3\text{A}$			1.8	V
Transition Frequency	$f_T$	$V_{CE}=5\text{V}, I_C=0.5\text{A}, f=1\text{MHz}$		20		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10\text{V}, f=1\text{MHz}$		90		pF

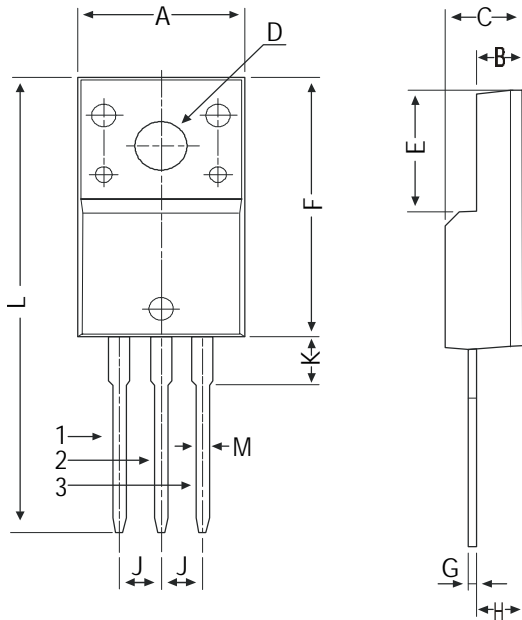
\* $h_{FE}$  Classification

**Q : 60 - 120**

**P : 100 - 200**

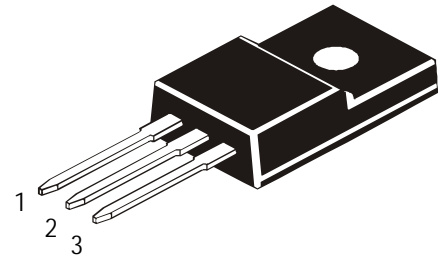
**TO-220FP Fully Isolated Plastic Package**

**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

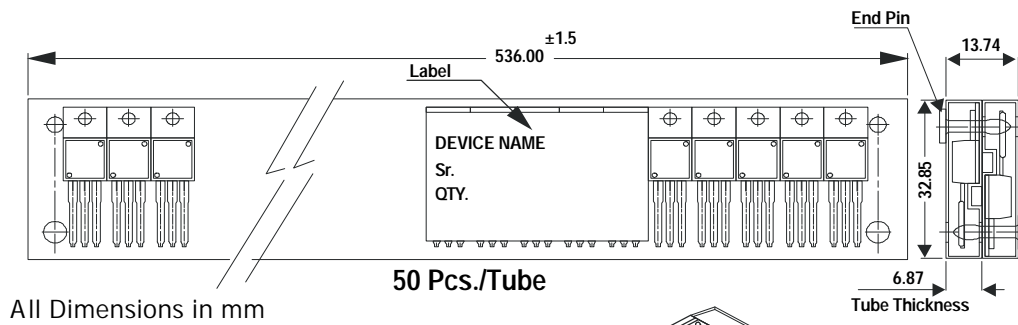
All dimensions in mm.



Pin Configuration

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

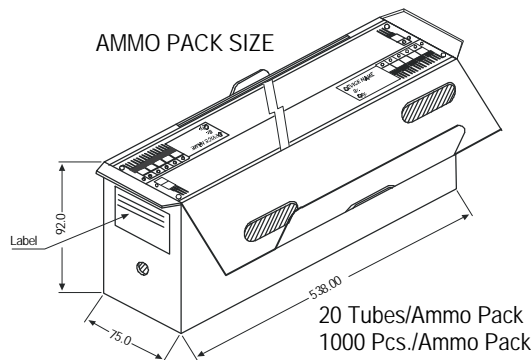
**TO-220 FP Tube Packing**



All Dimensions in mm

50 Pcs./Tube

AMMO PACK SIZE



20 Tubes/Ammo Pack  
1000 Pcs./Ammo Pack

**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

### **Disclaimer**

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