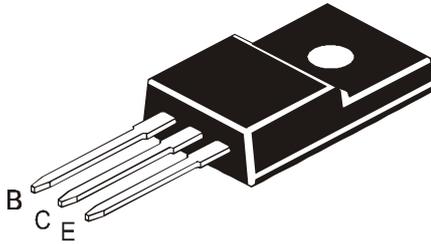


NPN SILICON PLANAR POWER TRANSISTOR

CFD2374, CFD2374A



TO-220FP Fully Isolated Plastic Package

Complementary CFB1548, CFB1548A

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	CFD2374	CFD2374A	UNIT
Collector Base Voltage	V_{CBO}	60	80	V
Collector Emitter Voltage	V_{CEO}	60	80	V
Emitter Base Voltage	V_{EBO}	6		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}	5		A
Collector Current	I_C	3		A
Collector Power Dissipation @ $T_c=25^\circ\text{C}$ @ $T_a=25^\circ\text{C}$	P_C	25		W
		2		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_{CES}	$V_{CE} = 60\text{V}, V_{BE} = 0$ CFD2374			200	μA
		$V_{CE} = 80\text{V}, V_{BE} = 0$ CFD2374A			200	μA
Collector Cut Off Current	I_{CEO}	$V_{CE} = 30\text{V}, I_B = 0$ CFD2374			300	μA
		$V_{CE} = 60\text{V}, I_B = 0$ CFD2374A			300	μA
Emitter Cut Off Current	I_{EBO}	$V_{EB} = 6\text{V}, I_C = 0$			1.0	mA
Collector Emitter Voltage	V_{CEO}	$I_C = 30\text{mA}, I_B = 0$ CFD2374 CFD2374A	60			V
			80			V
DC Current Gain	h_{FE}^* h_{FE}	$V_{CE} = 4\text{V}, I_C = 1\text{A}$ $V_{CE} = 4\text{V}, I_C = 3\text{A}$	70 10		250	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 3\text{A}, I_B = 0.375\text{A}$			1.2	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 4\text{V}, I_C = 3\text{A}$			1.8	V
Transition Frequency	f_T	$V_{CE} = 10\text{V}, I_C = 0.5\text{A},$ $f = 10\text{MHz}$		30		MHz
Turn On Time	t_{on}	$I_C = 1\text{A}, I_{B1} = 0.1\text{A}, I_{B2} = -0.1\text{A},$ $V_{CC} = 50\text{V}$		0.5		μs
Storage Time	t_{stg}			2.5		μs
Fall Time	t_f			0.4		μs

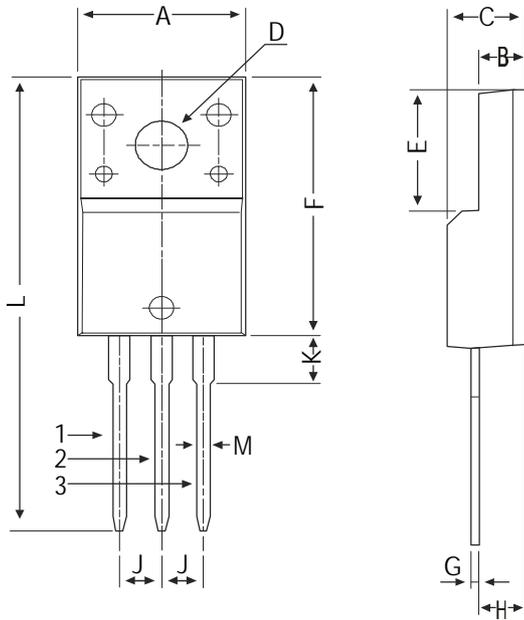
h_{FE}^* Classification

Q : 70 - 150

P : 120 - 250

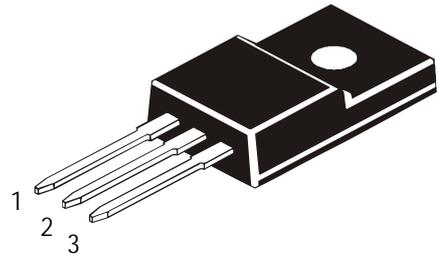
TO-220FP Fully Isolated Plastic Package

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

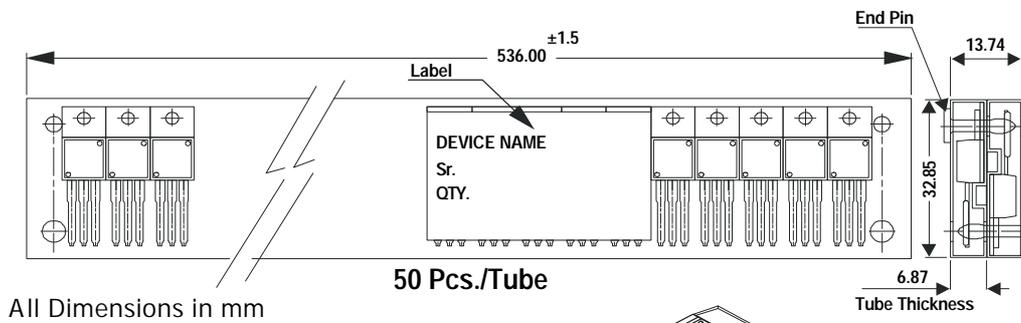
All dimensions in mm.



Pin Configuration

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

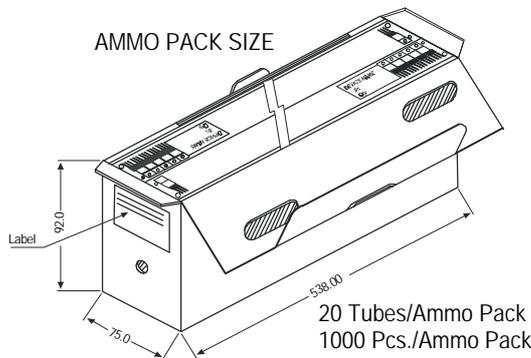
TO-220 FP Tube Packing



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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