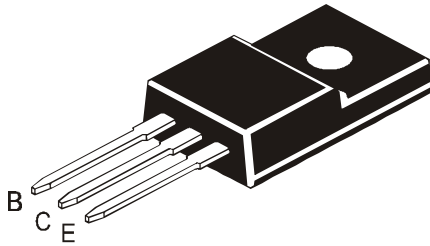


NPN SILICON PLANAR POWER TRANSISTOR

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

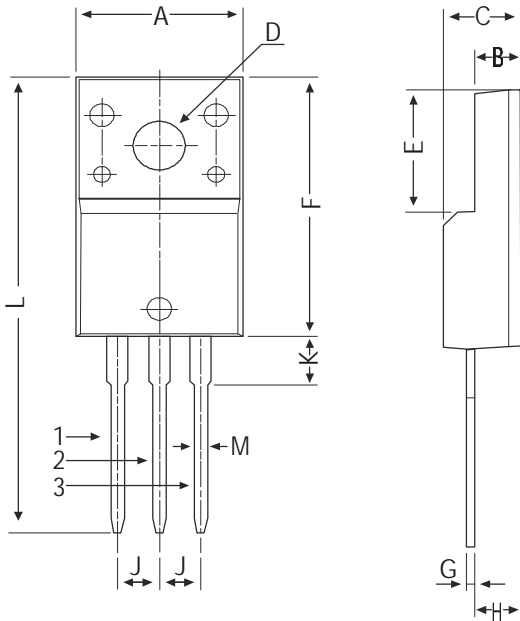
Q : 70 - 150

P : 120 - 250

CFD2374, CFD2374A

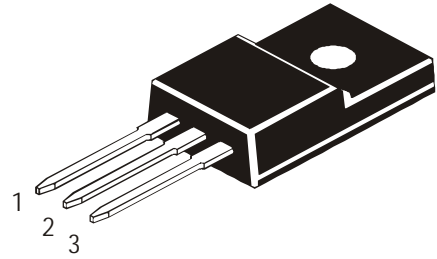
TO-220FP Fully Isolated Plastic Package

TO-220FP Fully Isolated Plastic Package



DIM	MIN	MAX
A	9.80	10.36
B	2.50	3.00
C	4.30	4.90
D	3.10	3.40
E	6.50	8.20
F	14.80	17.27
G	0.40	0.70
H	2.50	2.96
J	2.34	2.74
K	—	4.70
L	—	30.05
M	0.6	0.90

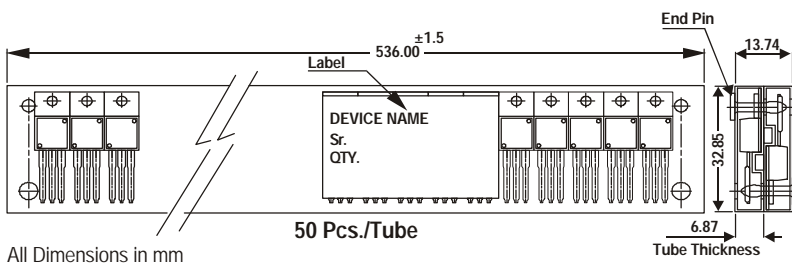
All dimensions in mm.



Pin Configuration

1. Base
2. Collector
3. Emitter

TO-220 FP Tube Packing

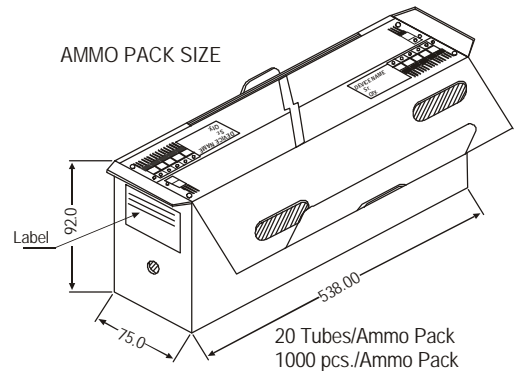


All Dimensions in mm

50 Pcs./Tube

Tube Thickness

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

**TO-220FP Fully Isolated
Plastic Package****Component Disposal Instructions**

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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