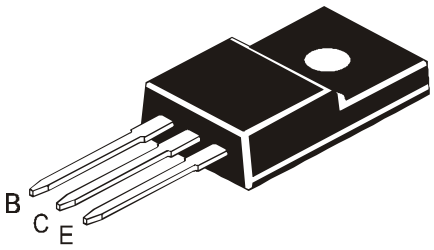
Continental Device India Limited
An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

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°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°C	P_C	25		W
@T_a=25°C		2		W
Junction Temperature	T_j	150		°C
Storage Temperature Range	T_{stg}	- 55 to +150		°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°C; Pulse Test: Pulse Width ≤300µs, Duty Cycle≤2%)

ELECTRICAL CHARACTERISTICS (T_C=25ºC unless otherwise specified)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut Off Current	I_{CES}	V_{CE} =60V, V_{BE}=0 **CFD2374**			200	µA
		V_{CE} =80V, V_{BE}=0 **CFD2374A**			200	µA
Collector Cut Off Current	I_{CEO}	V_{CE} =30V, I_B=0 **CFD2374**			300	µA
		V_{CE} =60V, I_B=0 **CFD2374A**			300	µA
Emitter Cut Off Current	I_{EBO}	V_{EB} =6V, I_C =0			1.0	mA
Collector Emitter Voltage	V_{CEO}	I_C=30mA, I_B=0				
		CFD2374	60			V
		CFD2374A	80			V
DC Current Gain	h_{FE}*	V_{CE} =4V, I_C =1A	70		250	
	h_{FE}	V_{CE} =4V, I_C =3A	10			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	I_C =3A, I_B =0.375A			1.2	V
Base Emitter On Voltage	$V_{BE(on)}$	V_{CE} =4V, I_C =3A			1.8	V
Transition Frequency	f_T	V_{CE} =10V, I_C = 0.5A, f=10MHz		30		MHz
Turn On Time	t_{on}	I_C=1A, I_{B1}=0.1A, I_{B2}= - 0.1A, V_{CC}=50V		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**

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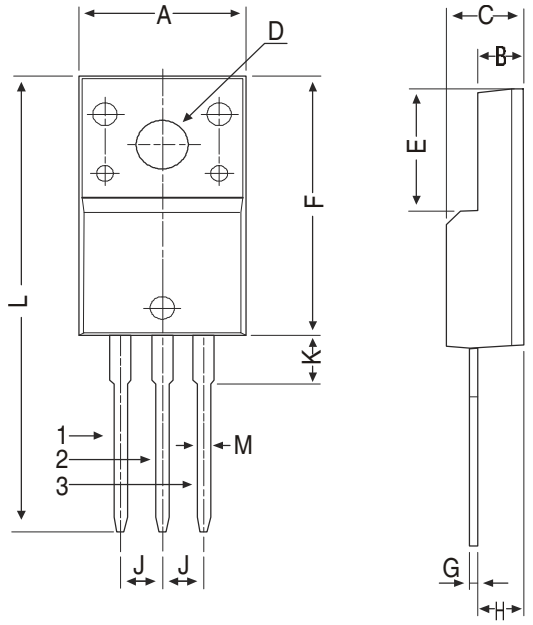
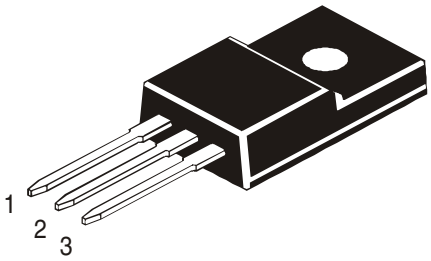


DIM	MIN	MAX
A	9.80	10.36
B	2.50	3.00
C	4.30	4.90
D	3.10	3.40
E	6.50	8.20
F	14.80	17.27
G	0.40	0.70
H	2.50	2.96
J	2.34	2.74
K	—	4.70
L	—	30.05
M	0.6	0.90

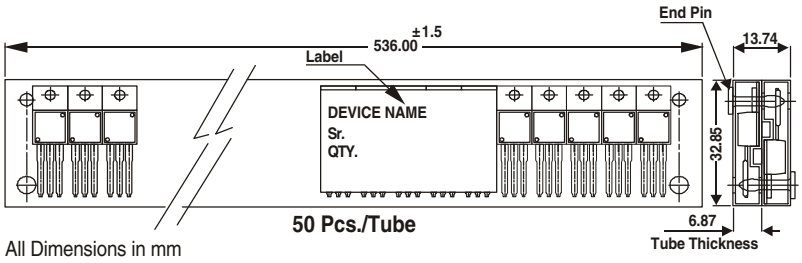
All diminsions in mm.



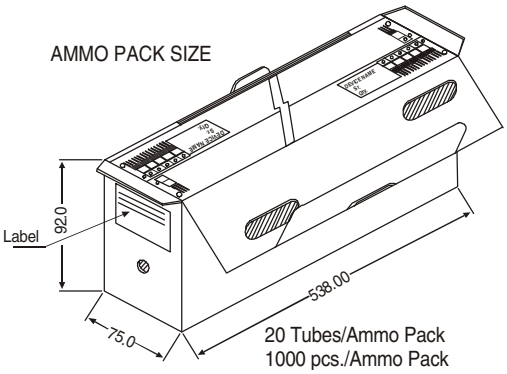
Pin Configuration

1. Base
2. Collector
3. Emitter

TO-220 FP Tube Packing



All Dimensions in mm



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

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