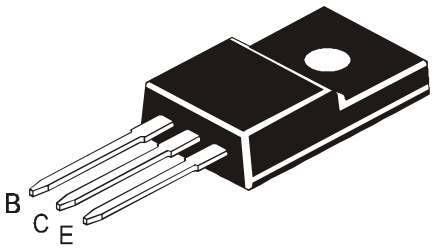
Continental Device India Limited

An ISO/TS16949 and ISO 9001 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

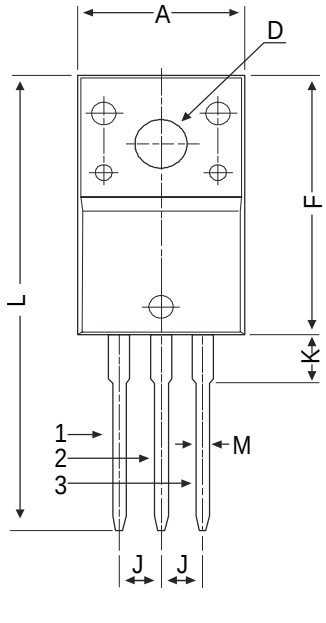
**** RMS Isolation Voltage: (a) 3500 V_{RMS} with Package in Clip Mounting Position (b) 1500 V_{RMS} with Package in Screw Mounting Position (for 1sec, R.H.<30%, T_a=25°C; Pulse Test: Pulse Width ≤300ms, Duty Cycle≤2%)**

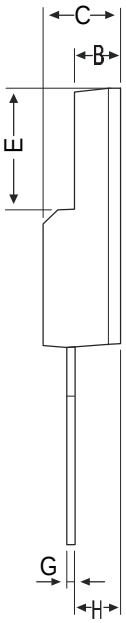
ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise specified)

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**

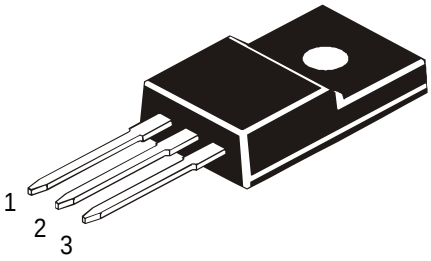
TO-220FP Fully Isolated Plastic Package





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

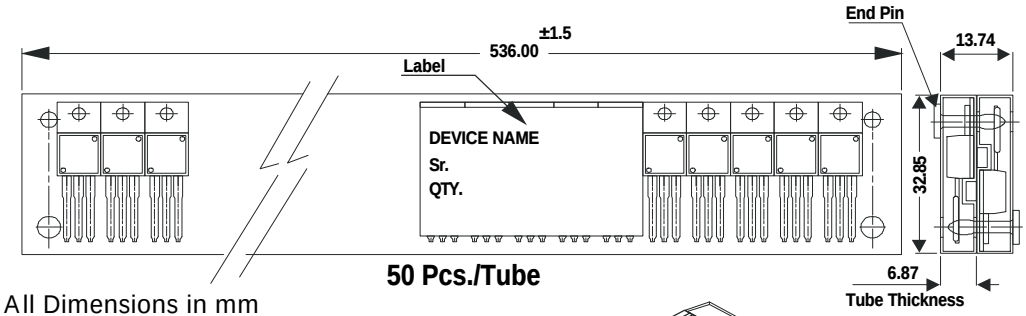
All diminsions in mm.



Pin Configuration

1. Base
2. Collector
3. Emitter

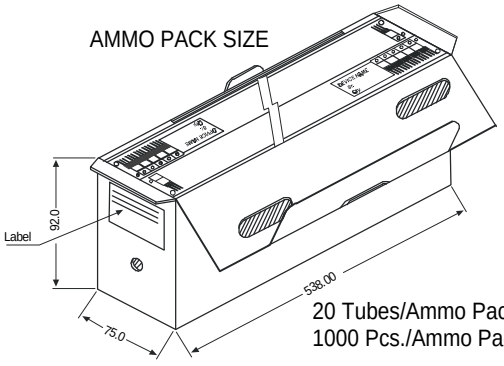
TO-220 FP Tube Packing



50 Pcs./Tube

All Dimensions in mm

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

Disclaimer

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