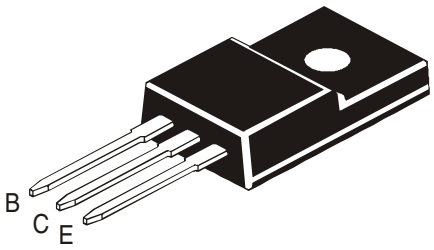
NPN POWER TRANSISTOR

CFD1408

TO-220FP Fully Isolated Plastic Package



Power Amplifier Applications

Complements CFB1017

ABSOLUTE MAXIMUM RATINGS (T_c = 25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	80	V
Collector Emitter Voltage	V_{CEO}	80	V
Emitter Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	4.0	A
Base Current	I_B	0.4	A
Collector Dissipation T_c=25ºC	P_D	25	W
Junction Temperature	T_j	150	ºC
Storage Temperature	T_{stg}	- 55 to +150	ºC

ELECTRICAL CHARACTERISTICS (T_a=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cut Off Current	I_{CBO}	V_{CB}=80V, I_E=0		30	µA
Emitter Cut Off Current	I_{EBO}	V_{EB}=5V, I_C=0		100	µA
Collector Emitter Voltage	V_{CEO}	I_C=50mA, I_B=0	80		V
Emitter Base Voltage	V_{EBO}	I_E=10mA, I_C=0	5		V
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=0.5A V_{CE}=5V, I_C=3A	40 15	240	
Collector Emitter Saturation Voltage	$V_{CE\ (sat)}$	I_C=3A, I_B=0.3A		1.5	V
Base Emitter On Voltage	$V_{BE\ (on)}$	V_{CE}=5V, I_C=3A		1.5	V

DYNAMIC CHARACTERISTISC

Transition Frequency	f_T	I_C=0.5A, V_{CE}=5V	TYP 8	MHz
Output Capacitance	C_{ob}	I_E=0, V_{CB}=10V, f=1MHz	TYP 90	pF

h_{FE} classification

Suffix	R	O	Y
h_{FE}	40 - 80	70 - 140	120 - 240

CFD1408Rev 011104E

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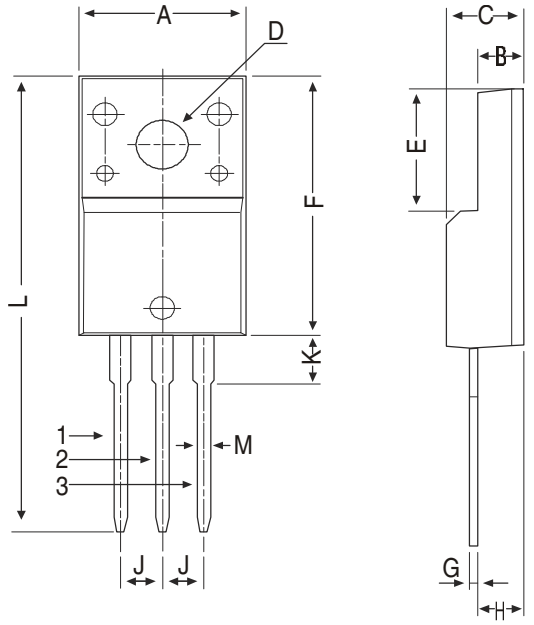
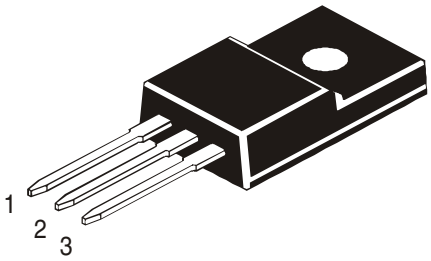


DIM	MIN	MAX
A	9.80	10.36
B	2.50	3.00
C	4.30	4.90
D	3.10	3.40
E	6.50	8.20
F	14.80	17.27
G	0.40	0.70
H	2.50	2.96
J	2.34	2.74
K	—	4.70
L	—	30.05
M	0.6	0.90

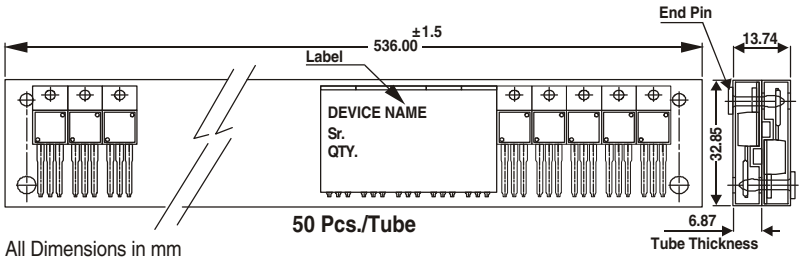
All diminsions in mm.



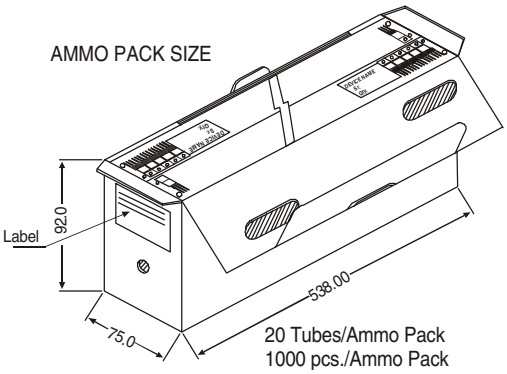
Pin Configuration

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

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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CFD1408Rev 011104E