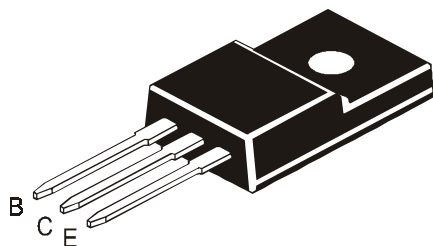


## NPN HIGH VOLTAGE HIGH SPEED SILICON POWER TRANSISTOR

BUF508A



TO-220FP Fully Isolated  
Plastic Package

### Applications

High voltage, high - speed switching transistor in TO - 220FP package envelope intended for use in horizontal deflection of colour television circuits.

### ABSOLUTE MAXIMUM RATINGS.

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Emitter Voltage Peak Value; $V_{BE}=0$	$V_{CESM}$	1500	V
Collector Emitter Voltage	$V_{CEO}$	700	V
Collector Current (DC)	$I_C$	8.0	A
Collector Current (Peak)	$I_{CM}$	15	A
Base Current (DC)	$I_B$	4.0	A
Base Current (Peak)	$I_{BM}$	6.0	A
Reverse Base Current (DC or average over any 20ms period)	$-I_{B(AV)}$	100	mA
Reverse Base Current *(Peak Value)	$I_{BM}$	5.0	A
Power Dissipation upto $T_{mb}=25^\circ\text{C}$	$P_{tot}$	60	W
Operating & Storage Junction Temperature Range	$T_j, T_{stg}$	-65 to +150	$^\circ\text{C}$

\*Turn off current

### ELECTRICAL CHARACTERISTICS ( $T_c=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cut off Current **	$I_{CES}$	$V_{CE}=V_{CESM} \text{ max, } V_{BE}=0$	-	1.0	mA
Emitter Cut off Current	$I_{EBO}$	$T_j=125^\circ\text{C}$ $V_{CE}=V_{CESM} \text{ max, } V_{BE}=0$ $V_{EB}=6V, I_C=0$	-	2.0 10	mA
Collector Emitter (sus) Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0, L=25\text{mH}$	700	-	V
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4.5A, I_B=2A$	-	1.0	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=4.5A, I_B=2A$	-	1.3	V

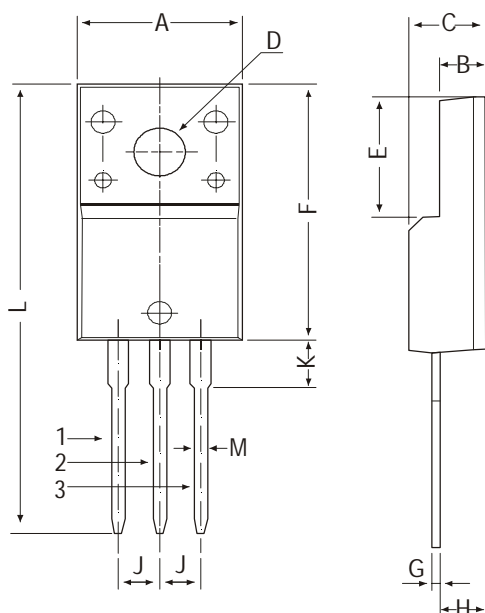
### DYNAMIC CHARACTERISTICS

Transition Frequency	$f_t$	$I_C=0.1A, V_{CE}=5V, f=5\text{MHz}$	TYP 7.0	MHz
Collector Capacitance	$C_c$	$I_E=0, V_{CB}=10V, f=1\text{MHz}$	TYP 125	pF

\*\*Measured with half - sinewave voltage (curve tracer)

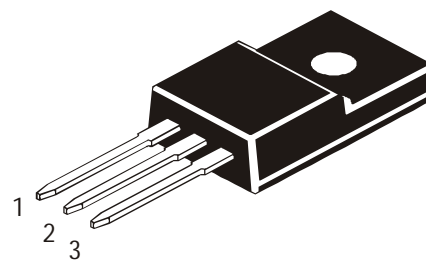
# TO-220FP Fully Isolated Plastic Package

## 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

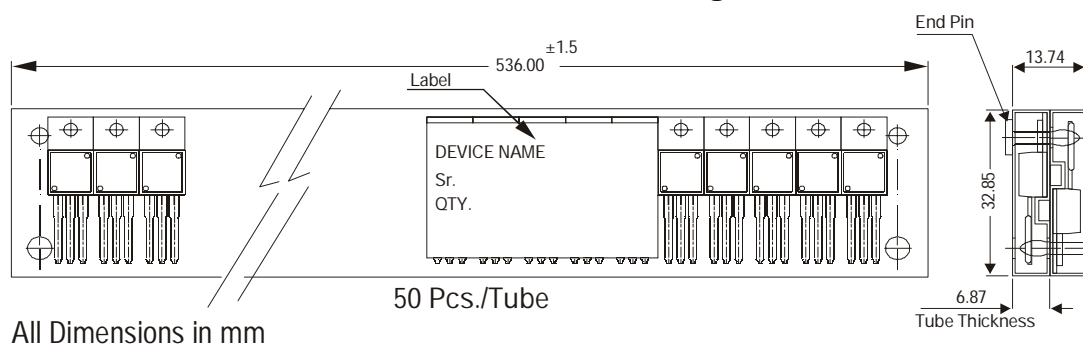
All diminsions in mm.



### Pin Configuration

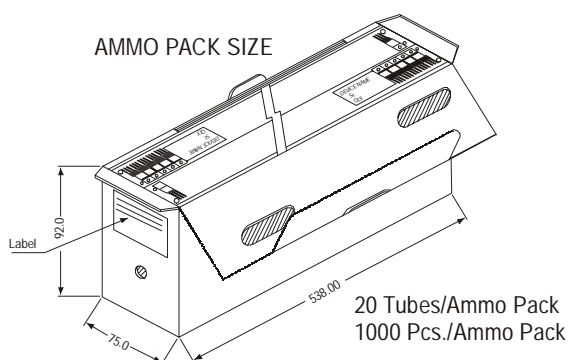
1. Base
2. Collector
3. Emitter

## TO-220 FP Tube Packing



All Dimensions in mm

### AMMO PACK SIZE



## 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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