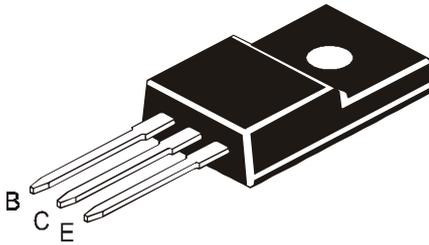


**NPN HIGH VOLTAGE HIGH SPEED SILICON POWER TRANSISTOR**

**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; VBE=0	V <sub>CESM</sub>	1500	V
Collector Emitter Voltage	V <sub>CEO</sub>	700	V
Collector Current (DC)	I <sub>C</sub>	8.0	A
Collector Current (Peak)	I <sub>CM</sub>	15	A
Base Current (DC)	I <sub>B</sub>	4.0	A
Base Current (Peak)	I <sub>BM</sub>	6.0	A
Reverse Base Current (DC or average over any 20ms period)	- I <sub>B(AV)</sub>	100	mA
Reverse Base Current *(Peak Value)	I <sub>BM</sub>	5.0	A
Power Dissipation upto T <sub>mb</sub> =25°C	P <sub>tot</sub>	60	W
Operating & Storage Junction Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	-65 to +150	°C

\*Turn off current

**ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cut off Current **	I <sub>CES</sub>	V <sub>CE</sub> =V <sub>CESM</sub> max, V <sub>BE</sub> =0	-	1.0	mA
		T <sub>j</sub> =125°C			
		V <sub>CE</sub> =V <sub>CESM</sub> max, V <sub>BE</sub> =0	-	2.0	mA
Emitter Cut off Current	I <sub>EBO</sub>	V <sub>EB</sub> =6V, I <sub>C</sub> =0	-	10	mA
Collector Emitter (sus) Voltage	V <sub>CEO(sus)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =0, L=25mH	700	-	V
Collector Emitter Saturation Voltage	V <sub>CE(Sat)</sub>	I <sub>C</sub> =4.5A, I <sub>B</sub> =2A	-	1.0	V
Base Emitter Saturation Voltage	V <sub>BE(Sat)</sub>	I <sub>C</sub> =4.5A, I <sub>B</sub> =2A	-	1.3	V

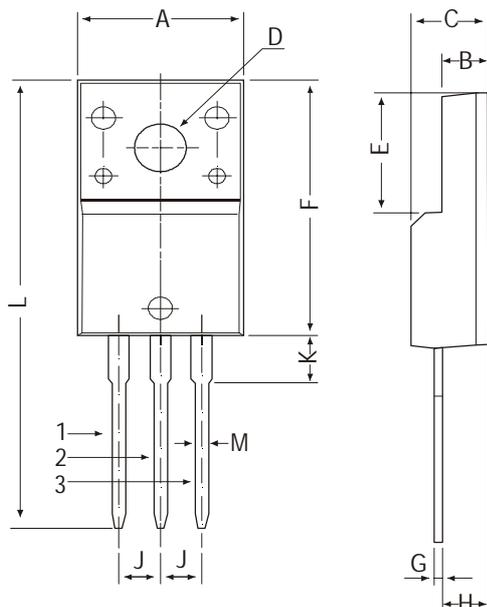
**DYNAMIC CHARACTERISTISC**

Transition Frequency	f <sub>t</sub>	I <sub>C</sub> =0.1A, V <sub>CE</sub> =5V, f=5MHz	TYP 7.0		MHz
Collector Capacitance	C <sub>c</sub>	I <sub>E</sub> =I <sub>ie</sub> =0, V <sub>CB</sub> =10V, f=1MHz	TYP 125		pF

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

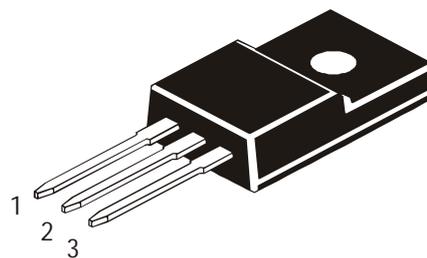
**TO-220FP Fully Isolated Plastic Package**

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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

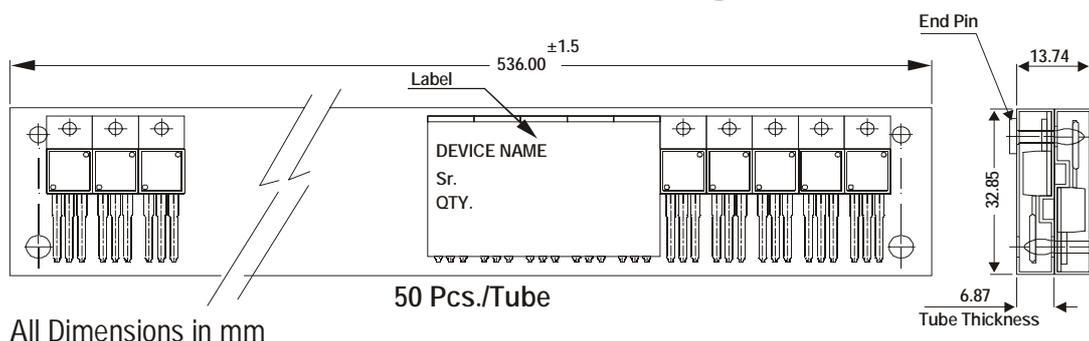
All dimensions in mm.



**Pin Configuration**

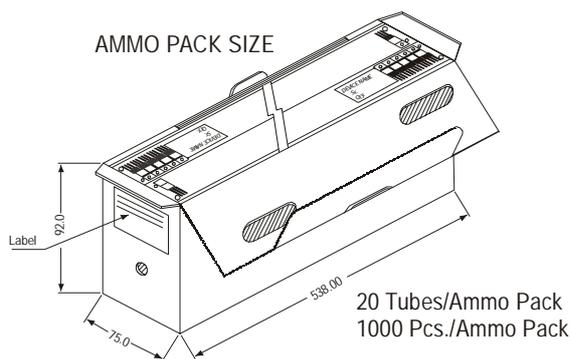
1. Base
2. Collector
3. Emitter

**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 50 pcs/tube	396 gm/200 pcs 135 gm/50 pcs	3" x 7.5" x 7.5" 3.5" x 3.7" x 21.5"	1K 1K	17" x 15" x 13.5" 19" x 19" x 19"	16K 10K	36 kgs 28 kgs

**TO-220FP Fully Isolated  
Plastic Package****Disclaimer**

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