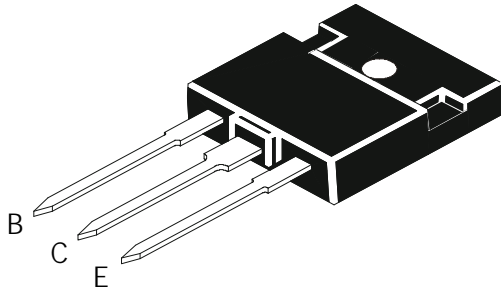


**NPN POWER TRANSISTORS**

**BU508F, BU508AF,  
BU508DF**



**TO- 3P Fully Isolated  
Plastic Package**

**Fast Switching, High Voltage Devices for use in Horizontal Deflection Circuits of Colour TV**

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Emitter Voltage	$V_{CES}$	1500	V
Collector -Emitter Voltage	$V_{CEO}$	700	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	8	A
Collector Peak Current	$I_{CM}$	15	
Total Power Dissipation upto $T_a=25^\circ\text{C}$ $T_c=25^\circ\text{C}$	$P_{tot}$	34 60	W
Storage Temperature Range	$T_{stg}$	- 65 to +150	$^\circ\text{C}$
Max Operating Junction Temperature	$T_j$	150	$^\circ\text{C}$

**THERMAL RESISTANCE**

Thermal Resistance Junction - Case	$R_{th(j-c)}$	2.08	$^\circ\text{C/W}$
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**ELECTRICAL CHARACTERISTICS ( $T_c=25^\circ\text{C}$  unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut off Current	$I_{CES}$	$V_{CE}=V_{CES}, V_{BE}=0$			1.0	mA
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}^*$	$I_B=0, I_C=100\text{mA}$	700			V
Emitter Base Voltage	$V_{EBO}$	$I_E=10\text{mA}, I_C=0$ <b>BU508F, AF</b>	5.0			V
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$ <b>BU508DF</b>			300	mA
DC Current Gain	$h_{FE}$	$I_C=4.5\text{A}, V_{CE}=5\text{V}$	2.25			
Diode forward Voltage	$V_F$	$I_F=4.0\text{A}$ <b>BU508DF</b>			2.0	V
Collector Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C=4.5\text{A}, I_B=2.0\text{A}$ <b>BU508AF, DF</b>			1.0	V
		$I_C=4.5\text{A}, I_B=2.0\text{A}$ <b>BU508F</b>			5.0	V
Base Emitter Saturation Voltage	$V_{BE(sat)}^*$	$I_C=4.5\text{A}, I_B=2.0\text{A}$			1.5	V

**SWITCHING TIME**

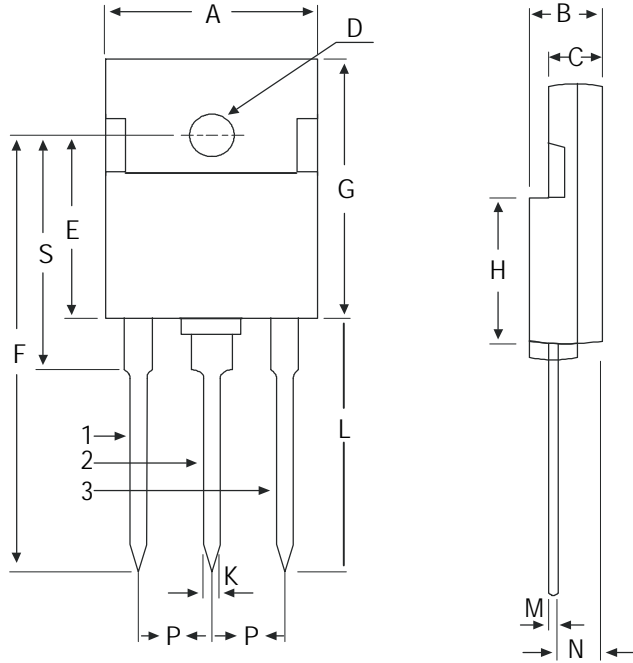
Storage Time	$t_s$	$I_C=4.5\text{A}, h_{FE}=2.5, V_{CC}=140\text{V}$		7.0		$\mu\text{s}$
Fall Time	$t_f$	$L_C=0.9\text{mH}, L_B=3\mu\text{H}$		0.5		$\mu\text{s}$

\* Pulse test: Pulse Duration  $\leq 300\text{ms}$  , Duty cycle  $\leq 1.5\%$ .

**BU508F, BU508AF,  
BU508DF**

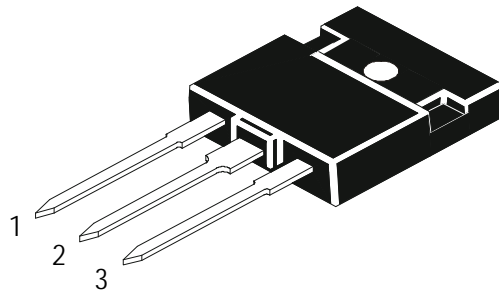
**TO- 3P Fully Isolated  
Plastic Package**

**TO-3P (TO-218) Plastic Package**



DIM	MIN	MAX
A	15.80	16.40
B	5.20	5.70
C	3.80	4.20
D	Ø 3.30	Ø 3.60
E	14.50	15.10
F	33.25	36.75
G	20.75	21.25
H	11.50	12.25
K	1.00	1.30
L	18.75	21.65
M	0.40	0.60
N	3.15	3.45
P	5.21	5.72
S	18.75	19.25

All diminsions in mm.



Pin Configuration

1. Base
2. Collector
3. Emitter

**Packing Detail**

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-3P	100 pcs/polybag	628 gm/100 pcs	3" x 7.5" x 7.5"	0.3K	17" x 15" x 13.5"	4.8K	42 kgs