

## Silicon NPN Power Transistors

## BU508AF

## DESCRIPTION

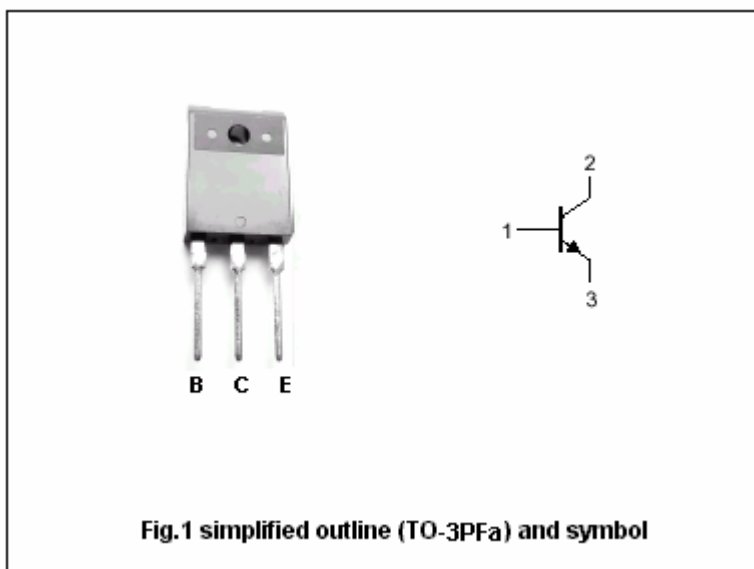
- With TO-3PFa package
- High voltage
- High speed switching

## APPLICATIONS

- For use in horizontal deflection circuits of high resolution monitors

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1500	V
$V_{CEO}$	Collector-emitter voltage	Open base	700	V
$V_{EBO}$	Emitter-base voltage	Open collector	7.5	V
$I_C$	Collector current (DC)		8	A
$I_{CP}$	Collector current (Pulse)		15	A
$I_B$	Base current (DC)		4	A
$I_{BM}$	Base current (Pulse)		6	A
$P_{tot}$	Total power dissipation	$T_C=25$	34	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-65~150	

## Silicon NPN Power Transistors

## BU508AF

## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =100mA ; I <sub>B</sub> =0, L=25mH	700			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA ; I <sub>C</sub> =0	7.5	13.5		V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4.5A; I <sub>B</sub> =1.6A			1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =4.5A ; I <sub>B</sub> =2A			1.1	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =RatedV <sub>CE</sub> ; V <sub>BE</sub> =0 T <sub>C</sub> =125			1.0 2.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =6V; I <sub>C</sub> =0			10	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =0.1A ; V <sub>CE</sub> =5V	6		30	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.1A ; V <sub>CE</sub> =5V		7		MHz
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =10V; f=1MHz		125		pF

Silicon NPN Power Transistors

BU508AF

PACKAGE OUTLINE

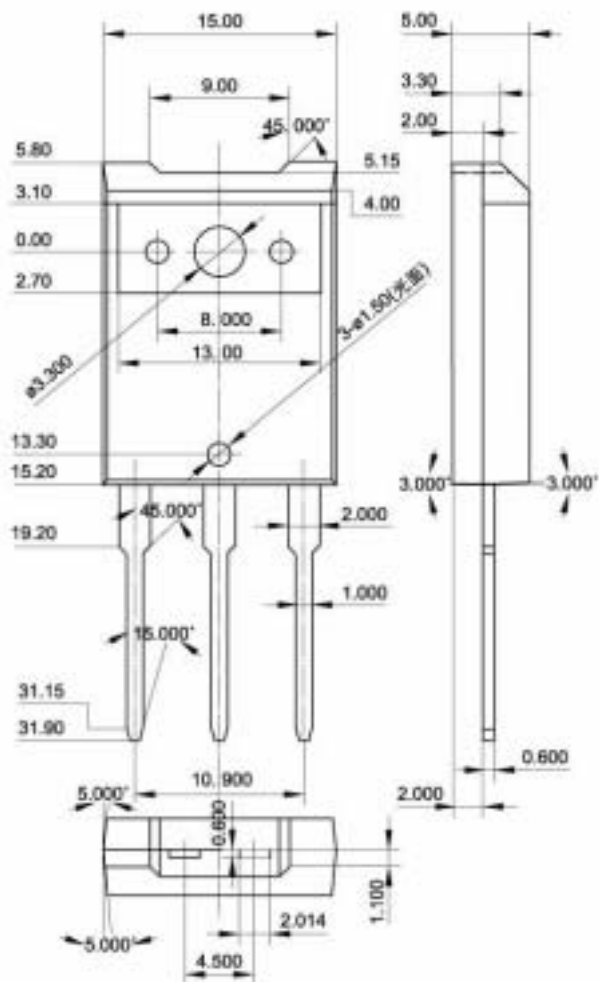


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.30$ mm)