

Silicon NPN Power Transistors

BU2508DF

DESCRIPTION

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- With TO-3PFa package
- High voltage,high speed
- Built-in damper diode

APPLICATIONS

- For use in horizontal deflection circuits of colour TV

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

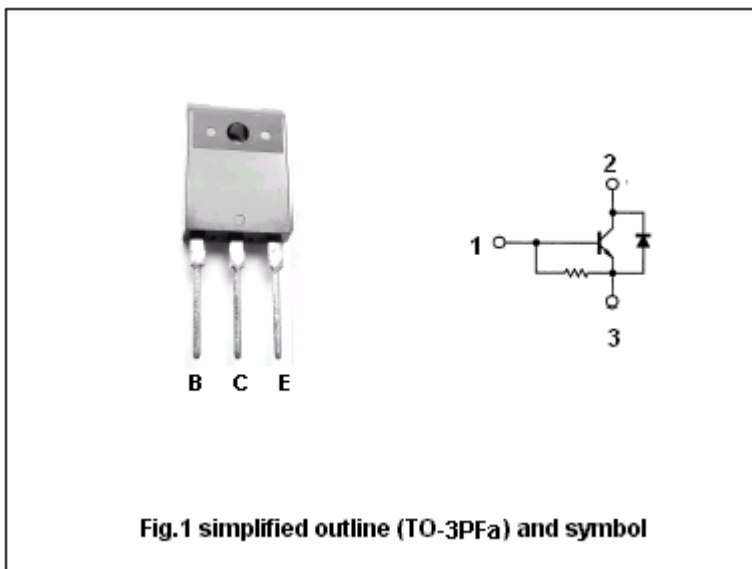


Fig.1 simplified outline (TO-3PFa) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	1500	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	700	V
I <sub>C</sub>	Collector current (DC)		8	A
I <sub>CM</sub>	Collector current (Pulse)		15	A
I <sub>B</sub>	Base Collector current (DC)		4	A
I <sub>BM</sub>	Base current (Pulse)		6	A
P <sub>tot</sub>	Total power dissipation	T <sub>C</sub> =25°C	45	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~150	°C

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## CHARACTERISTICS

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

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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>EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =600mA ; 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> =1.12A			1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =4.5A ; I <sub>B</sub> =1.7A			1.1	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =BV <sub>CES</sub> ; V <sub>BE</sub> =0 T <sub>j</sub> =125°C			1.0 2.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7.5V; I <sub>C</sub> =0		227		mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V		13		
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =4.5A ; V <sub>CE</sub> =1V	4	5.5	7.0	
V <sub>F</sub>	Diode forward voltage	I <sub>F</sub> =4.5A		1.6	2.0	V
C <sub>C</sub>	Collector capacitance	I <sub>E</sub> =0; f=1MHz; V <sub>CB</sub> =10V		80		pF

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PACKAGE OUTLINE

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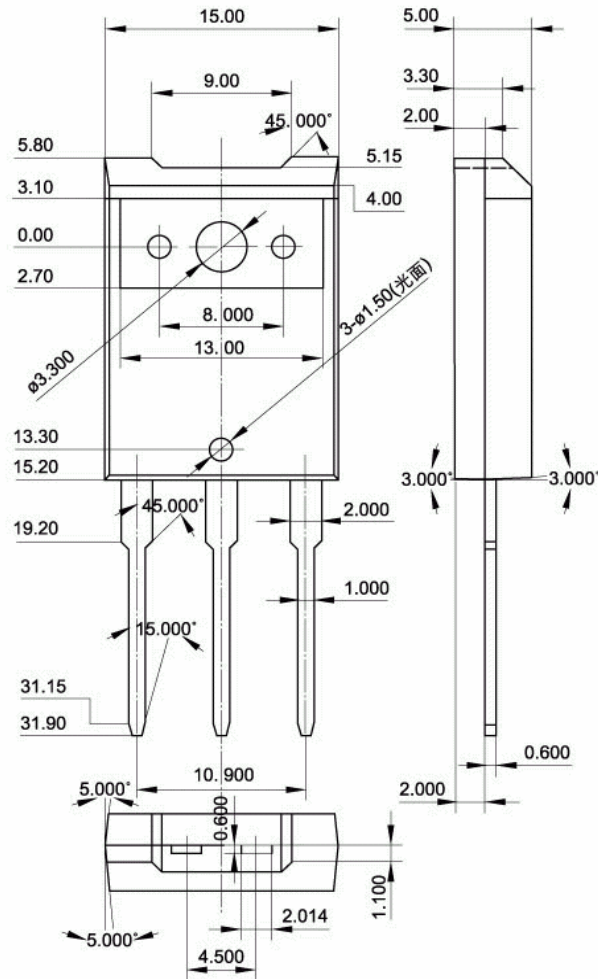


Fig.2 Outline dimensions (unindicated tolerance:±0.30mm)