

Silicon NPN Power Transistors

BU508

**DESCRIPTION**

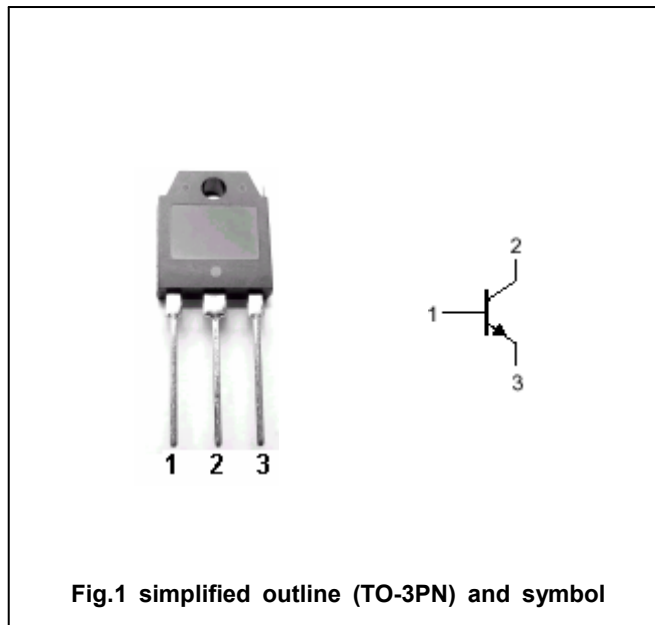
- With TO-3PN package
- High voltage
- High speed switching

**APPLICATIONS**

- For use in horizontal deflection circuits of large screen colour TV receivers.

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter



**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
V <sub>EBO</sub>	Emitter-base voltage	Open collector	10	V
I <sub>C</sub>	Collector current (DC)		8	A
I <sub>CM</sub>	Collector current (Pulse)		15	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	125	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~150	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance junction case	1.0	°C/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10mA; I <sub>C</sub> =0	10			V
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =100mA; I <sub>B</sub> =0	700			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4.5A; I <sub>B</sub> =2A			5.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =4.5A; I <sub>B</sub> =2A			1.3	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =1500V; V <sub>BE</sub> =0 T <sub>C</sub> =125°C			1.0 2.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			0.1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A; V <sub>CE</sub> =5V	8			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.1A; V <sub>CE</sub> =5V		7		MHz
t <sub>s</sub>	Storage time	I <sub>C</sub> =4.5A; V <sub>CC</sub> =140V I <sub>B</sub> =1.8A; L <sub>C</sub> =0.9mH		7		μs
t <sub>f</sub>	Fall time	L <sub>B</sub> =3μH		0.55		μs

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PACKAGE OUTLINE

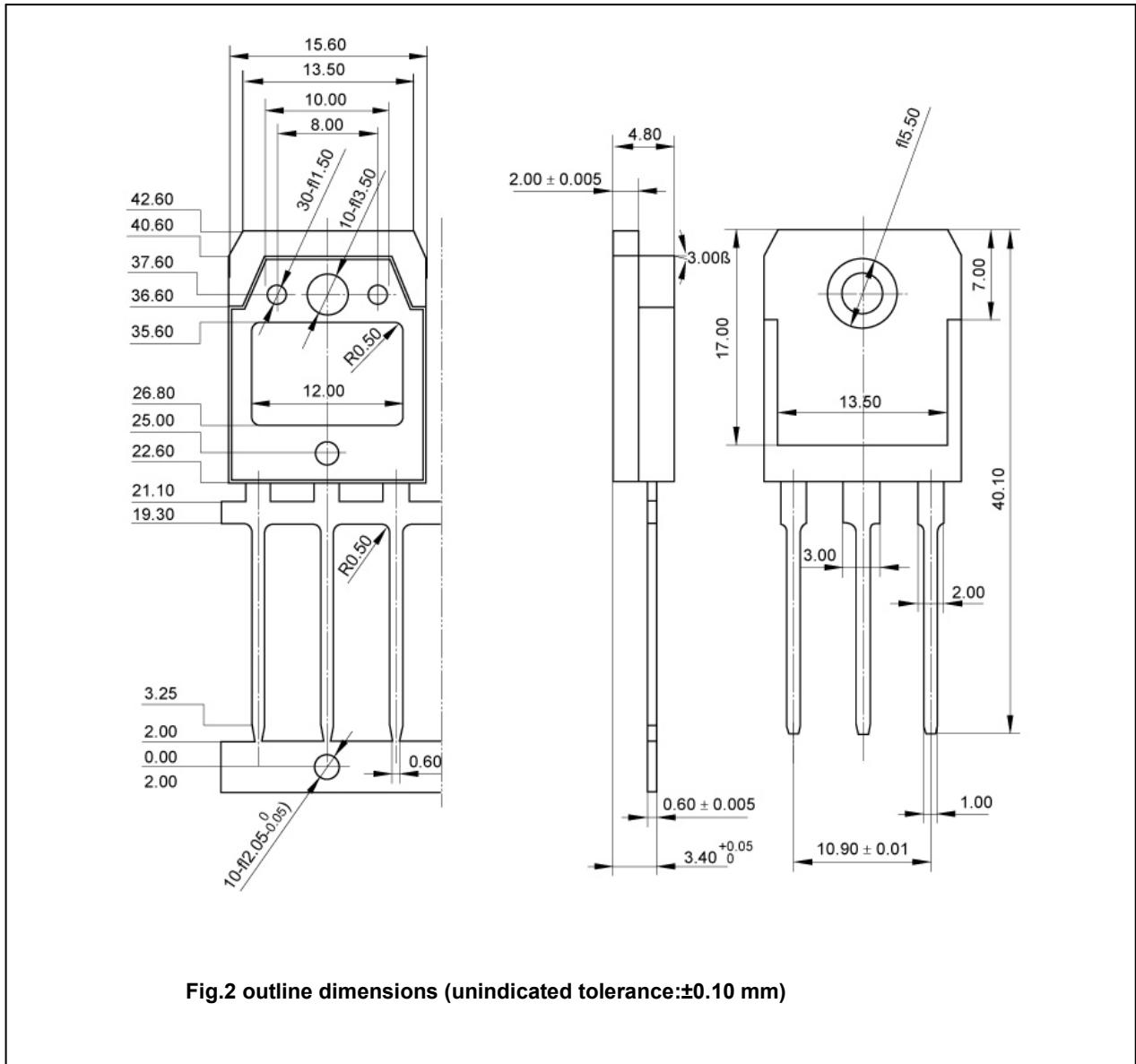


Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)