

Silicon NPN Power Transistors

BU508A

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

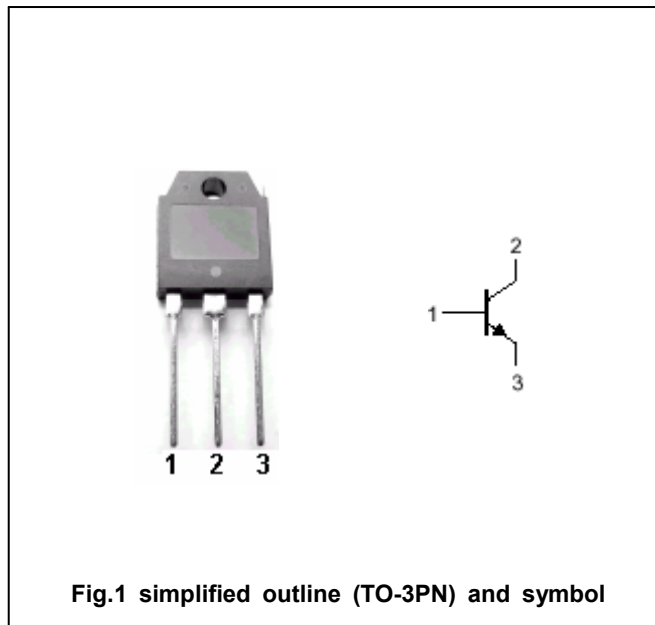


Fig.1 simplified outline (TO-3PN) and symbol

ABSOLUTE MAXIMUM RATINGS (TC=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1200	V
V_{CEO}	Collector-emitter voltage	Open base	700	V
V_{EBO}	Emitter-base voltage	Open collector	10	V
I_C	Collector current (DC)		8	A
I_{CM}	Collector current (Pulse)		15	A
P_C	Collector power dissipation	$T_C=25^\circ C$	125	W
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction case	1.0	°C/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10mA; I _C =0	10			V
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =100mA; I _B =0	700			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =4.5A; I _B =2A			1.0	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =4.5A; I _B =2A			1.3	V
I _{CES}	Collector cut-off current	V _{CE} =1200V; V _{BE} =0 T _C =125°C			1.0 2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			0.1	mA
h _{FE}	DC current gain	I _C =1A; V _{CE} =5V	8			
t _s	Storage time	I _C =4.5A; V _{CC} =140V I _B =1.8A; L _C =0.9mH L _B =3μH		7		μs
t _f	Fall time			0.55		μs
f _T	Transition frequency	I _C =0.1A; V _{CE} =5V		7		MHz

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PACKAGE OUTLINE

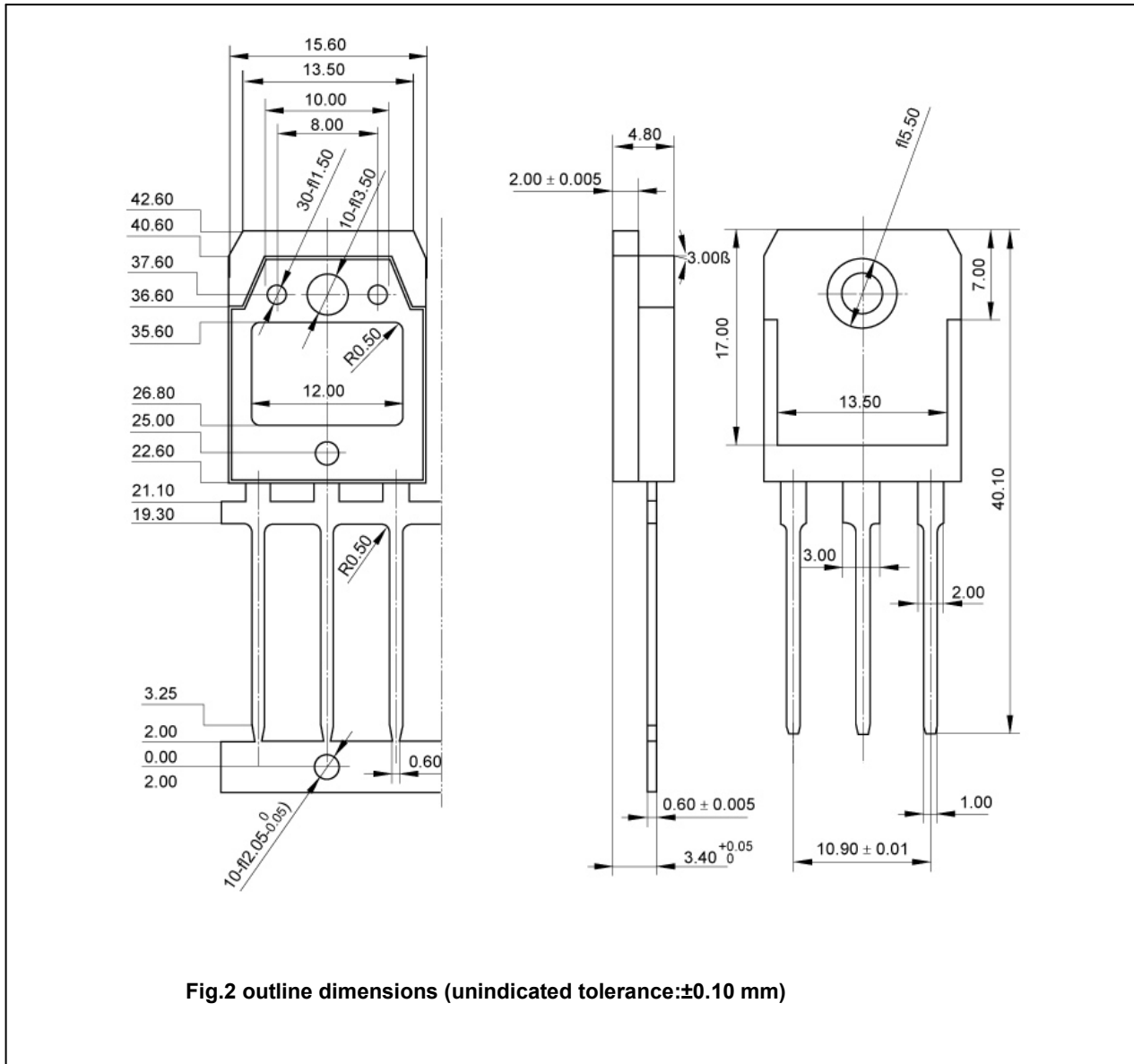


Fig.2 outline dimensions (unindicated tolerance: \pm 0.10 mm)