

**Silicon NPN Power Transistors**

**BU508DW**

**DESCRIPTION**

- With TO-247 package
- High voltage,high speed
- Built-in damper diode

**APPLICATIONS**

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

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

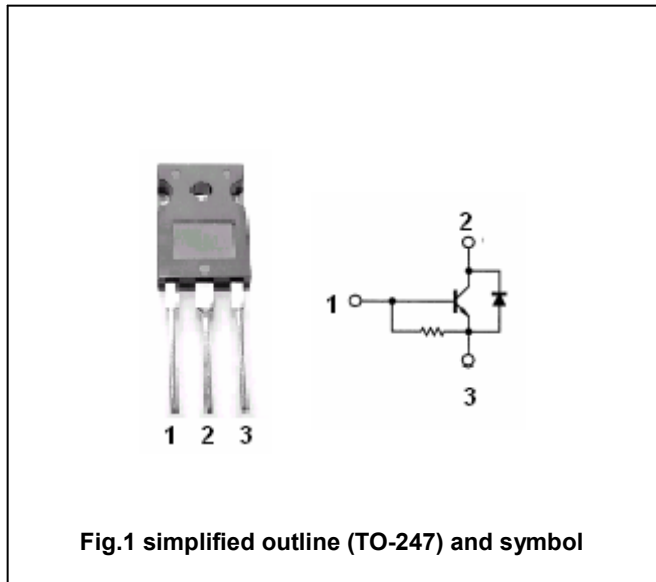


Fig.1 simplified outline (TO-247) and symbol

**ABSOLUTE MAXIMUM RATINGS(T<sub>C</sub>=25℃)**

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>CP</sub>	Collector current (Pulse)		15	A
I <sub>B</sub>	Base 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℃	125	W
T <sub>j</sub>	Junction temperature		150	℃
T <sub>stg</sub>	Storage temperature		-65~150	℃

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## CHARACTERISTICS

T<sub>j</sub>=25°C 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>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4.5A ; I <sub>B</sub> =1.6A			1.0	V
V <sub>BE(sat)</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> =1500V, 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> =5.0V; I <sub>C</sub> =0			300	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =500mA ; V <sub>CE</sub> =5V	10		30	
V <sub>F</sub>	Diode forward voltage	I <sub>F</sub> =4.5A		1.6	2.0	V
f <sub>T</sub>	Transition frequency	I <sub>E</sub> =0.1A ; V <sub>CE</sub> =5V		7		MHz
C <sub>C</sub>	Collector capacitance	V <sub>CB</sub> =10V; I <sub>E</sub> =0; f=1.0MHz		125		pF

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PACKAGE OUTLINE

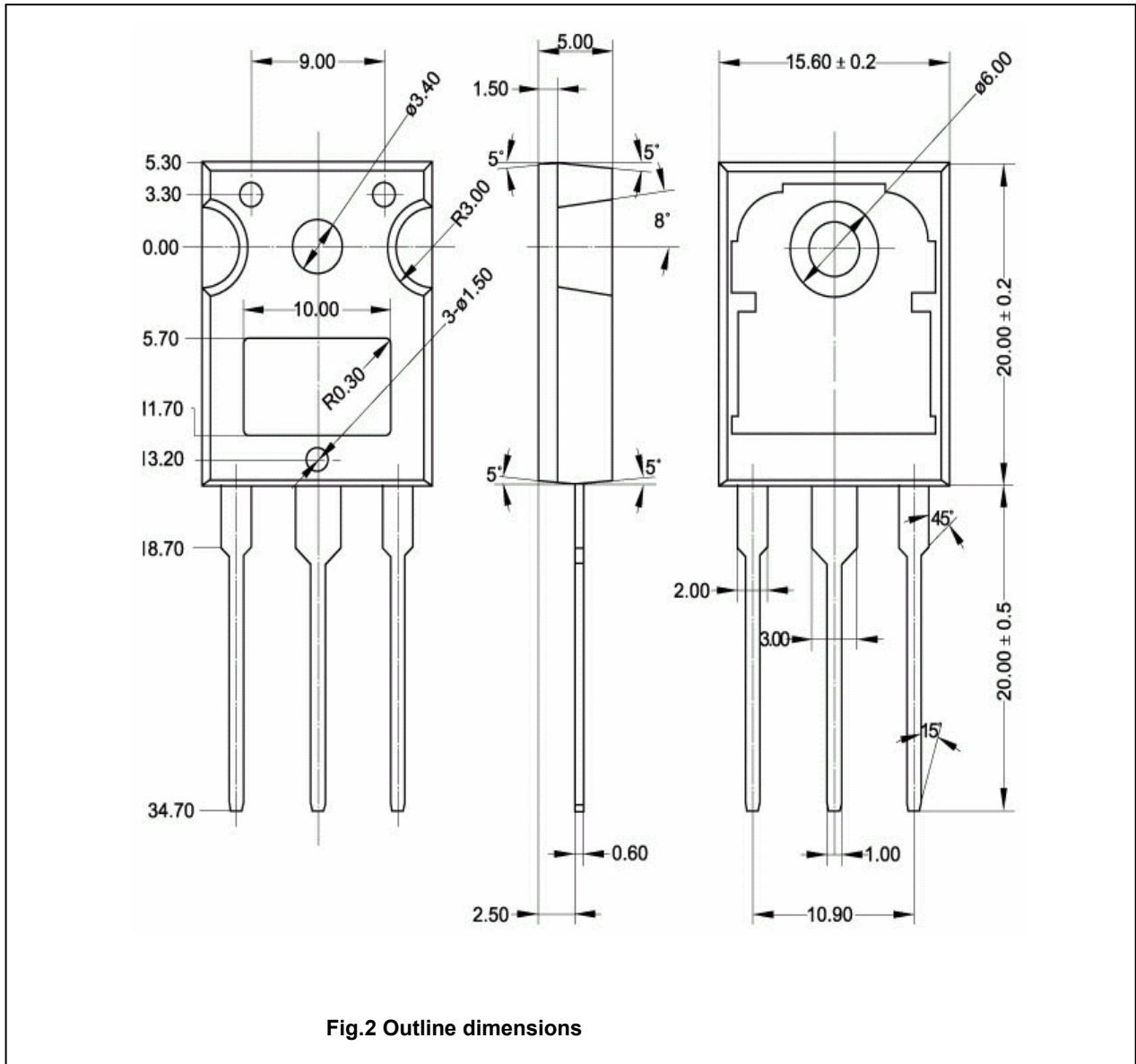


Fig.2 Outline dimensions