

Silicon NPN Power Transistors

BU508DW

DESCRIPTION

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- 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

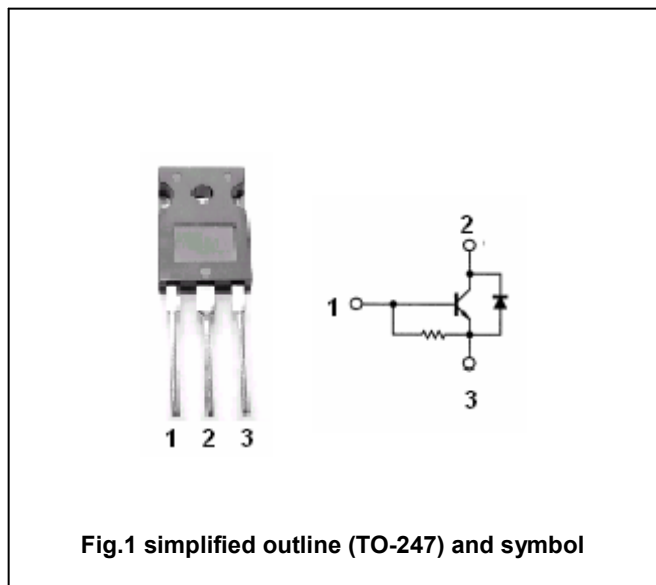


Fig.1 simplified outline (TO-247) and symbol

ABSOLUTE MAXIMUM RATINGS($T_C=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	700	V
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	$T_C=25^\circ\text{C}$	125	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =100mA ; I _B =0, L=25mH	700			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =4.5A ; I _B =1.6A			1.0	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =4.5A ; I _B =2A			1.1	V
I _{CES}	Collector cut-off current	V _{CE} =1500V, V _{BE} =0 T _j =125°C			1.0 2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5.0V ; I _C =0			300	mA
h _{FE}	DC current gain	I _C =500mA ; V _{CE} =5V	10		30	
V _F	Diode forward voltage	I _F =4.5A		1.6	2.0	V
f _T	Transition frequency	I _E =0.1A ; V _{CE} =5V		7		MHz
C _C	Collector capacitance	V _{CB} =10V ; I _E =0 ; f=1.0MHz		125		pF

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PACKAGE OUTLINE

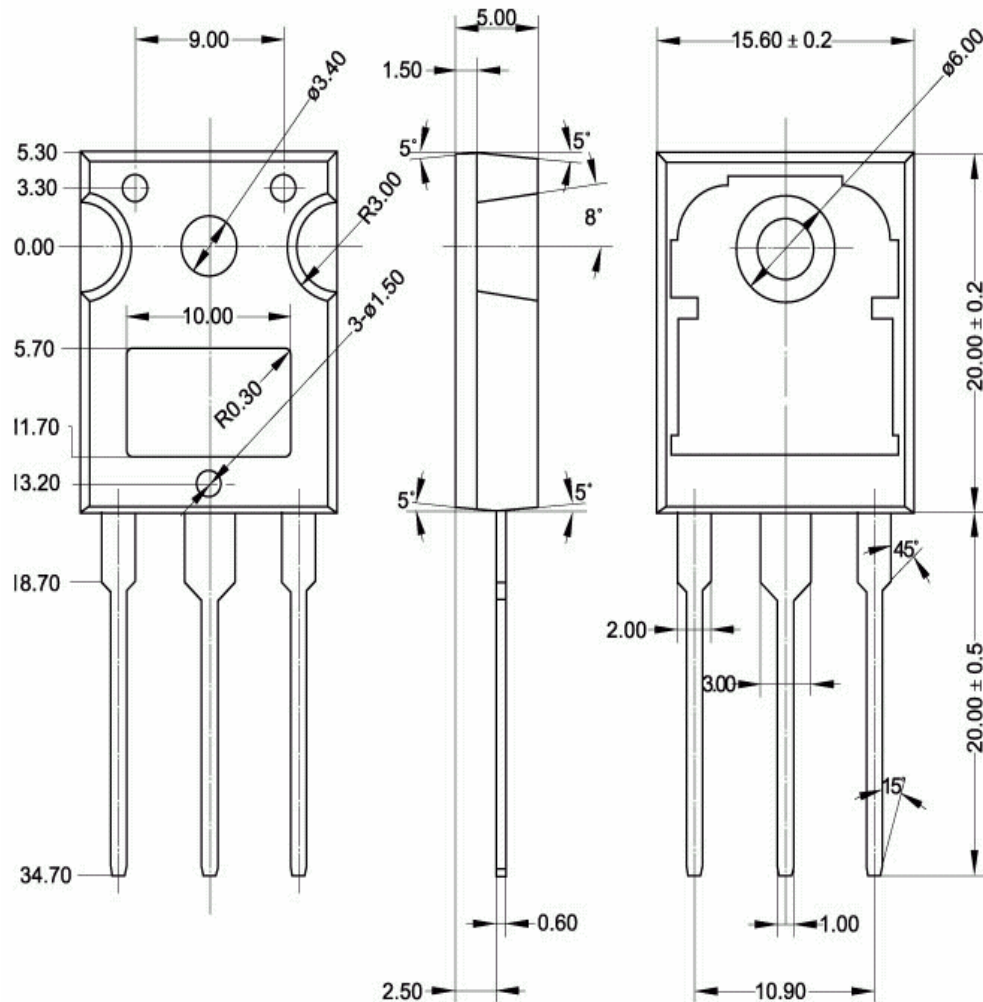
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Fig.2 Outline dimensions