

Silicon NPN Power Transistors

BU2508D

DESCRIPTION

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- With TO-3PN 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;connected to mounting base
3	Emitter

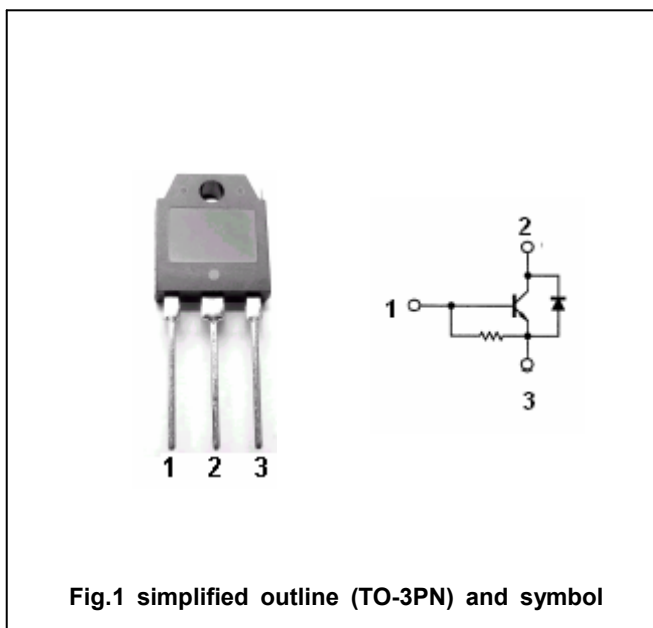


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1500	V
V _{CEO}	Collector-emitter voltage	Open base	700	V
V _{EBO}	Emitter-base voltage	Open collector	7.5	V
I _C	Collector current		8	A
I _{CM}	Collector current-peak		15	A
I _B	Base current		4	A
I _{BM}	Base current-peak		6	A
P _C	Collector power dissipation	T _C =25°C	125	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

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CHARACTERISTICS

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 $T_j=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.1\text{A}; I_B=0, L=25\text{mH}$	700			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=600\text{mA}; I_C=0$	7.5	13.5		V
$V_{CE(sat-1)}$	Collector-emitter saturation voltage	$I_C=4.5\text{A}; I_B=1.1\text{A}$			5.0	V
$V_{CE(sat-2)}$	Collector-emitter saturation voltage	$I_C=4.5\text{A}; I_B=1.29\text{A}$			1.0	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=4.5\text{A}; I_B=1.7\text{A}$			1.3	V
I_{CES}	Collector cut-off current	$V_{CE}=\text{rated}; V_{BE}=0$ $T=125^\circ\text{C}$			1.0 2.0	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=7.5\text{V}; I_C=0$	140		390	mA
h_{FE-1}	DC current gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	7	13	23	
h_{FE-2}	DC current gain	$I_C=4.5\text{A}; V_{CE}=1\text{V}$	4	5.5	7.5	
V_F	Diode forward voltage	$I_F=4.5\text{A}$		1.6	2.0	V
C_C	Collector capacitance	$V_{CB}=10\text{V}; f=1\text{MHz}$		80		pF

PACKAGE OUTLINE

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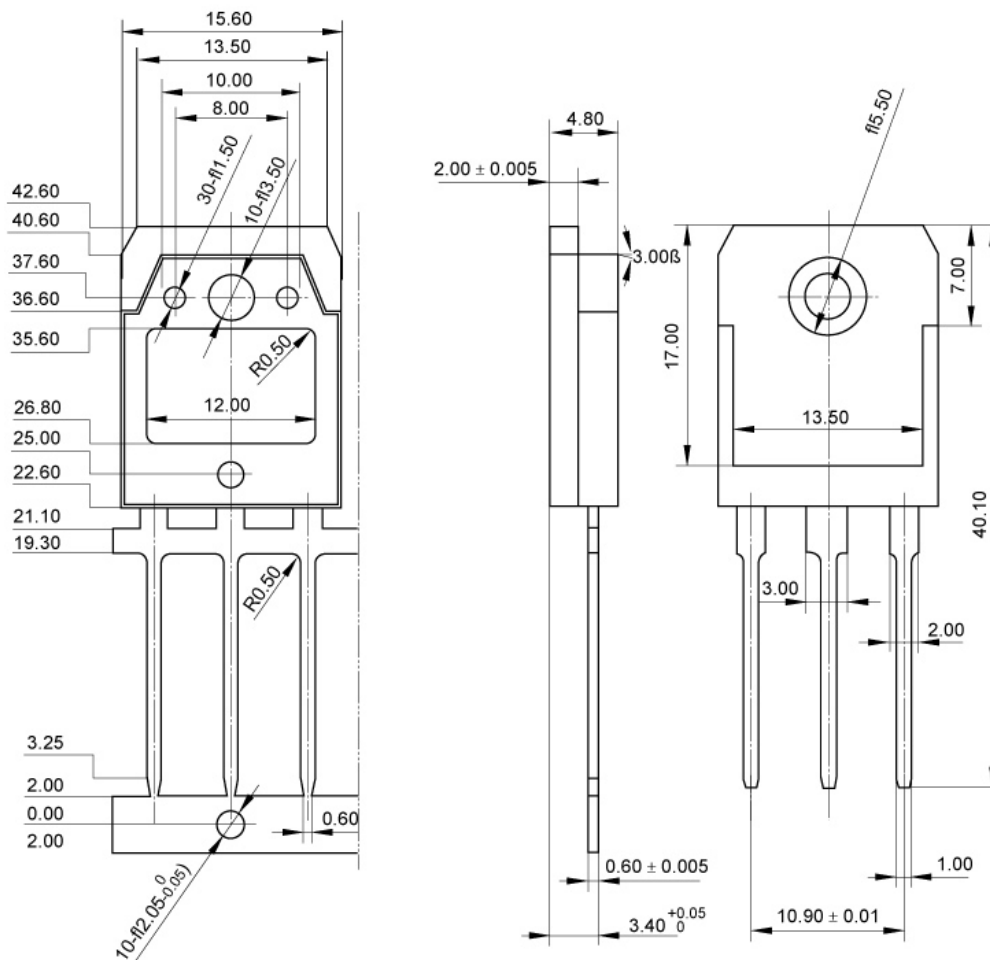


Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)