

Silicon NPN Power Transistors

BU508D

DESCRIPTION

- With TO-3PN package
- High voltage
- Built-in damper diode

APPLICATIONS

- For use in large screen colour deflection circuits.

PINNING

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

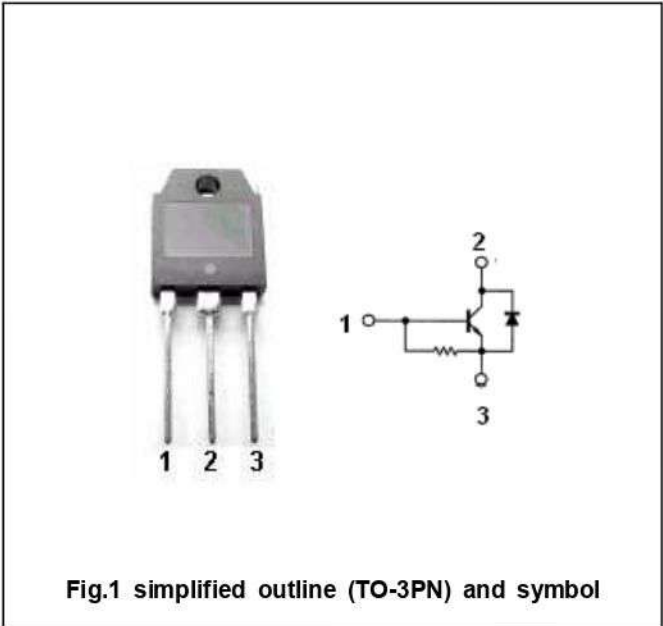


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25℃)

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	5	V
I_C	Collector current (DC)		5	A
I_{CM}	Collector current (Pulse)		8	A
I_B	Base current		2.5	A
P_C	Collector power dissipation	$T_C=25^{\circ}\text{C}$	125	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-65-150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.0	℃/W

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CHARACTERISTICS

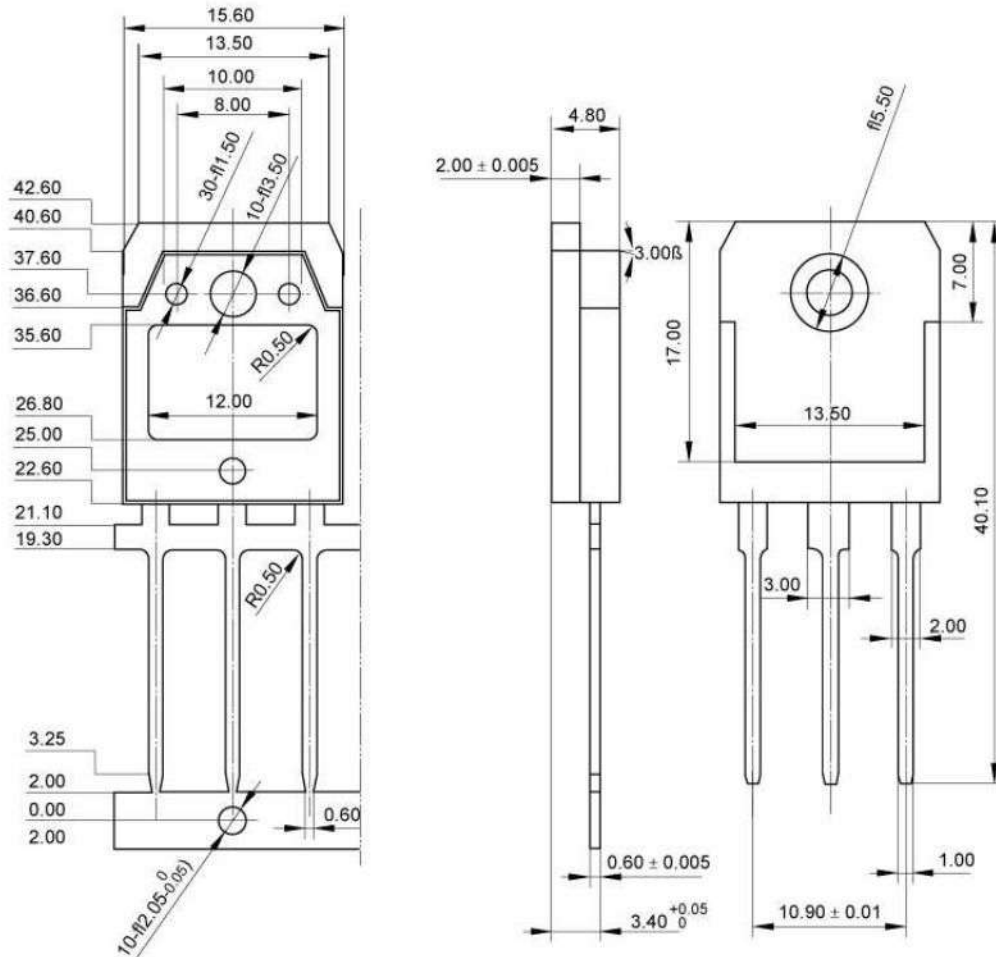
T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =100mA; I _B =0	700			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4.5A; I _B =2.0A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =4.5A; I _B =2.0A			1.5	V
h _{FE}	DC current gain	I _C =1A; V _{CE} =5V	8			
I _{CES}	Collector cut-off current	V _{CE} =1500V; V _{BE} =0			1.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			300	mA
V _F	Diode forward voltage	I _F =4.0A			2.0	V
f _T	Transition frequency	I _C =0.1A; V _{CE} =5V		4		MHz
C _{ob}	Collector capacitance	I _E =0; V _{CB} =10V; f=1MHz		125		pF
t _s	Storage time	I _C =4.5A; I _B =1.4A L _B =10μH		7		μs
t _f	Fall time			1.0		μs

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PACKAGE OUTLINE

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