

Silicon NPN Power Transistors

BU500

DESCRIPTION

- With TO-3 package
- Low collector saturation voltage

APPLICATIONS

- Designed for use in large screen color deflection circuits.

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

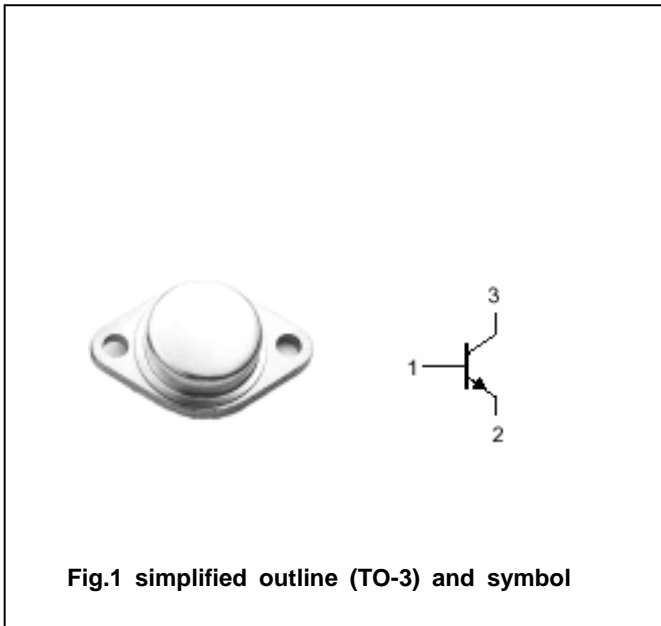


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings (Tc=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		6	A
I_{CM}	Collector current-peak		16	A
I_B	Base current		4	A
P_T	Total power dissipation	$T_C=25$	75	W
T_j	Junction temperature		-65~150	
T_{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-C}$	Thermal resistance junction to case	1.66	/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 =0.5A; I _B =0; L=10mH	700			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =100mA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4.5A; I _B =2A			1.0	V
V _{BE}	Base-emitter on voltage	I _C =4.5A; V _{CE} =5V			1.3	V
I _{CBO}	Collector cut-off current	V _{CE} =1000V; V _{BE} =-2V			0.02	mA
I _{CEx}	Collector cut-off current	V _{CE} =1500V; V _{BE} =-2V			1.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =4V; I _C =0			10	mA
h _{FE-1}	DC current gain	I _C =1A; V _{CE} =5V	8		36	
h _{FE-2}	DC current gain	I _C =4.5A; V _{CE} =5V	3.0			

Switching times

t _s	Storage time	I _C =4.5A; I _{B1} =-I _{B2} =1.5A V _{CC} =100V;			1.2	μs
t _f	Fall time				1.0	μs

PACKAGE OUTLINE

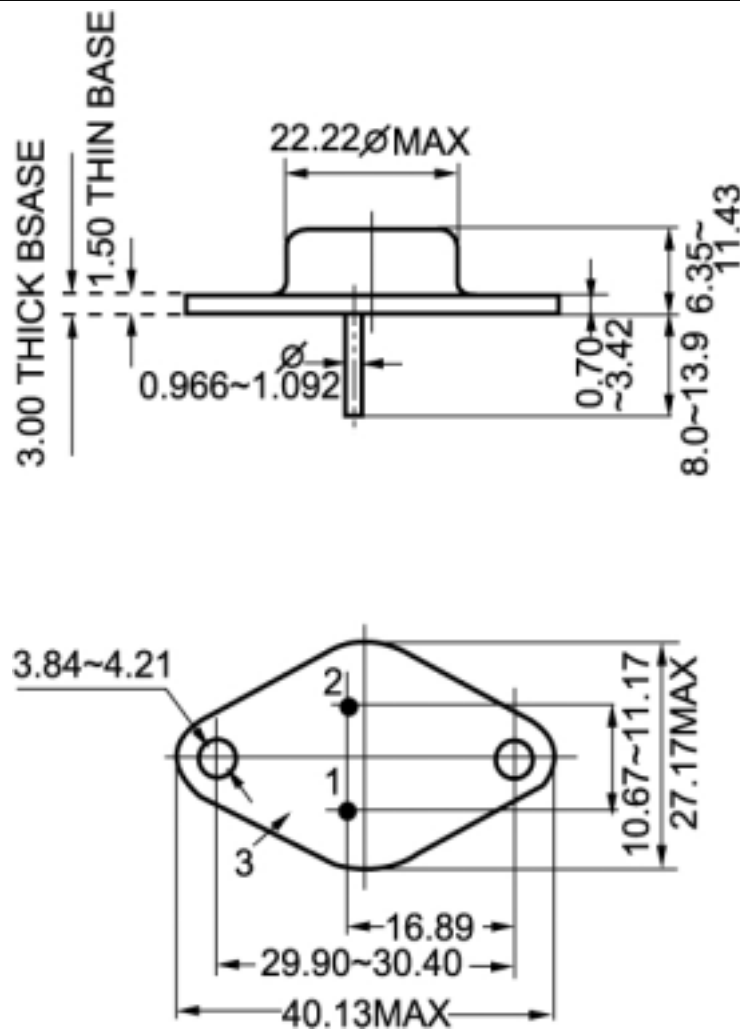


Fig.2 Outline dimensions