

Silicon NPN Power Transistors

BU100

DESCRIPTION

- With TO-3 package
- High voltage capability

APPLICATIONS

- For horizontal deflection output stage of CTV receivers and high voltage, fast switching and industrial applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

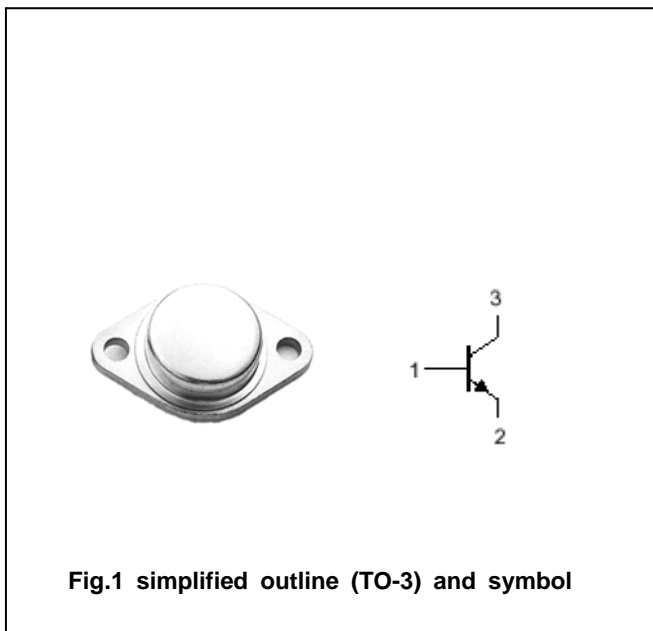


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	150	V
$V_{CEO}$	Collector-emitter voltage	Open base	60	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		10	A
$I_{CM}$	Collector current-peak		15	A
$P_D$	Total power dissipation	$T_c=75^{\circ}C$	15	W
$T_j$	Junction temperature		200	$^{\circ}C$
$T_{stg}$	Storage temperature		-55~200	$^{\circ}C$

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## BU100

## 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	60			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =1mA; I <sub>E</sub> =0	150			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA; I <sub>C</sub> =0	7			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =8A ; I <sub>B</sub> =2.5A			3.3	V
V <sub>BE(sat)</sub>	Base-emitter saturation voltage	I <sub>C</sub> =8A ; I <sub>B</sub> =2.5A			2.2	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =120V; I <sub>E</sub> =0			10	μ A
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7V; I <sub>C</sub> =0			10	μ A
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =2A ; V <sub>CE</sub> =2V	40		90	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =10V;f=1MHz	0.1			MHz

PACKAGE OUTLINE

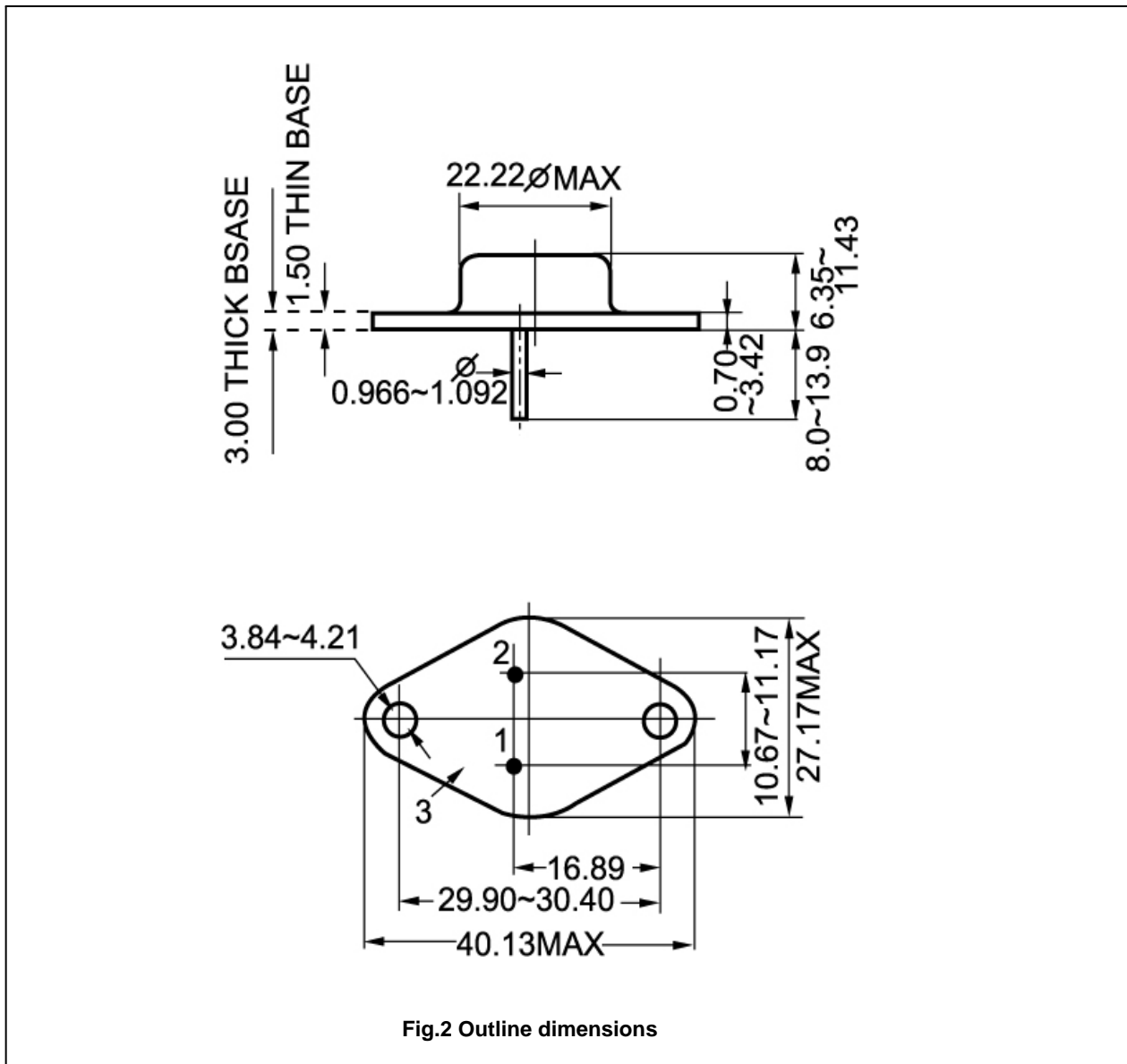


Fig.2 Outline dimensions