

Silicon PNP Power Transistors

2N3196

DESCRIPTION

- With TO-3 package
- Excellent safe operating area
- Low collector saturation voltage

APPLICATIONS

- For medium-speed switching and amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

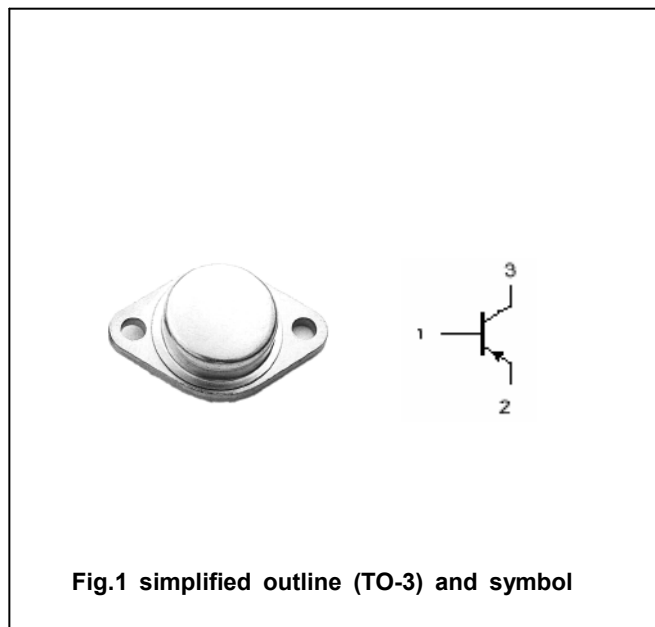


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-60	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-5	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	75	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{(th)jc}$	Thermal resistance junction to case	1.17	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =-0.2A ; I _B =0	-60			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =-5A ; I _B =-1A			-1.5	V
V _{BE(on)}	Base-emitter on voltage	I _C =-5A ; V _{CE} =-4V			-2.0	V
I _{CEO}	Collector cut-off current	V _{CE} =Rated V _{CEO} ; I _B =0			-5.0	mA
I _{CBO}	Collector cut-off current	V _{CB} =Rated V _{CBO} ; I _E =0			-0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V ; I _C =0			-1.0	mA
h _{FE-1}	DC current gain	I _C =-0.3A ; V _{CE} =-4V	30			
h _{FE-2}	DC current gain	I _C =-3A ; V _{CE} =-4V	15			

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PACKAGE OUTLINE

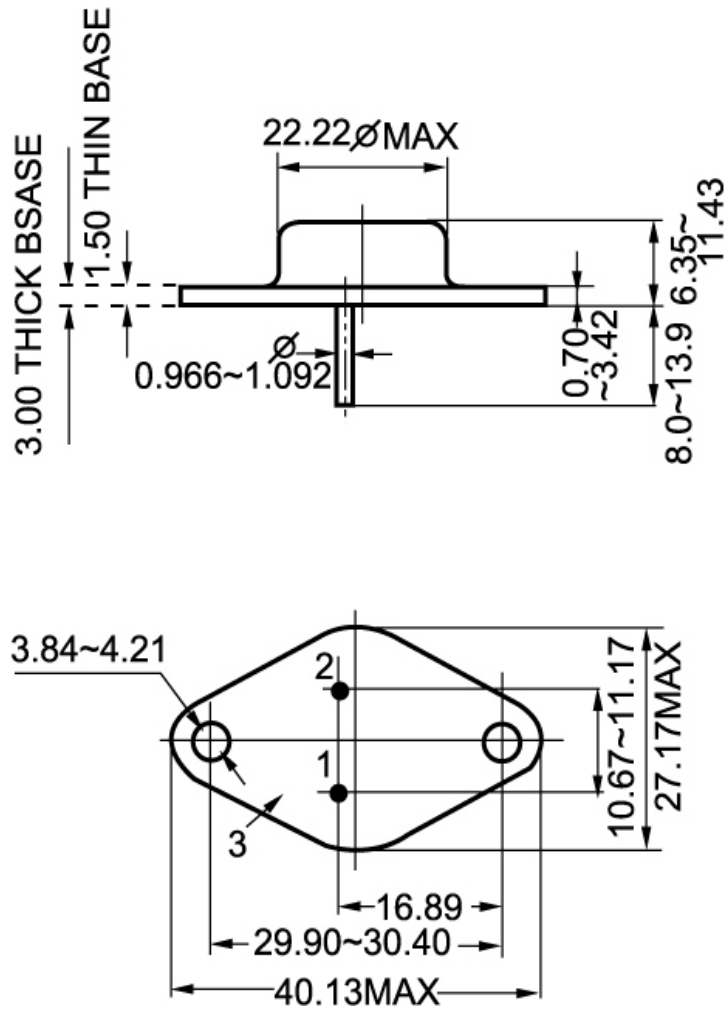


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)