

Silicon NPN Power Transistors

2SC1610

DESCRIPTION

- With TO-3 package
- High current capability
- Fast switching speed

APPLICATIONS

- For high speed power switching applications

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

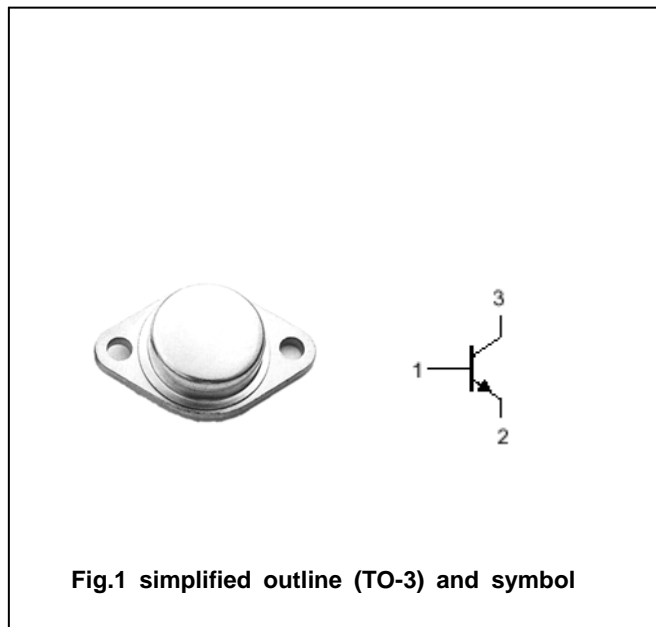


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		10	A
P_T	Total power dissipation	$T_C=25^{\circ}\text{C}$	100	W
T_j	Junction temperature		175	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-55~175	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	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 =0.1A; I _B =0	100			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA; I _E =0	150			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA; I _C =0	6			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =10A; I _B =1A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =10A; I _B =1A			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =100V; I _E =0			0.1	mA
I _{CEO}	Collector cut-off current	V _{CE} =60V; I _B =0			1.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			0.1	mA
h _{FE}	DC current gain	I _C =5A; V _{CE} =5V	30		160	

PACKAGE OUTLINE

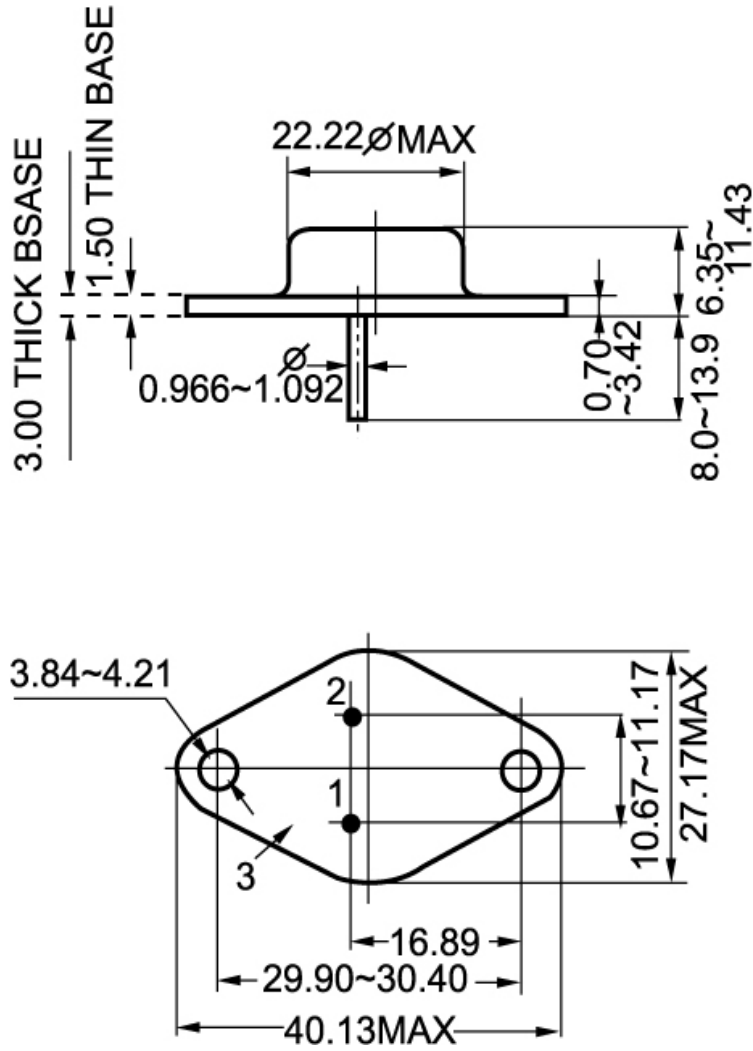


Fig.2 Outline dimensions