

Silicon NPN Power Transistors

2SC1431

DESCRIPTION

- With TO-66 package
- Excellent safe operating area

APPLICATIONS

- For use in high frequency power amplifier applications.

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

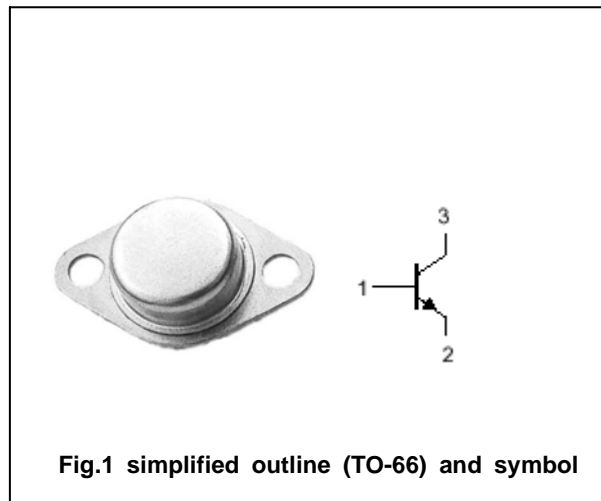


Fig.1 simplified outline (TO-66) and symbol

Absolute maximum ratings($T_a = ^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	110	V
V_{CEO}	Collector-emitter voltage	Open base	110	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		2	A
P_D	Total power dissipation	$T_C = 25^\circ\text{C}$	23	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	I _C =50mA ; I _B =0	110			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =1A; I _B =0.1A			1.0	V
V _{BE sat}	Base-emitter saturation voltage	I _C =1A; I _B =0.1A			1.2	V
I _{CBO}	Collector cut-off current	V _{CB} =110V; I _E =0			10	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	μ A
h _{FE}	DC current gain	I _C =0.4A ; V _{CE} =2V	50		240	
f _T	Transition frequency	I _C =0.4A ; V _{CE} =10V	30			MHz

PACKAGE OUTLINE

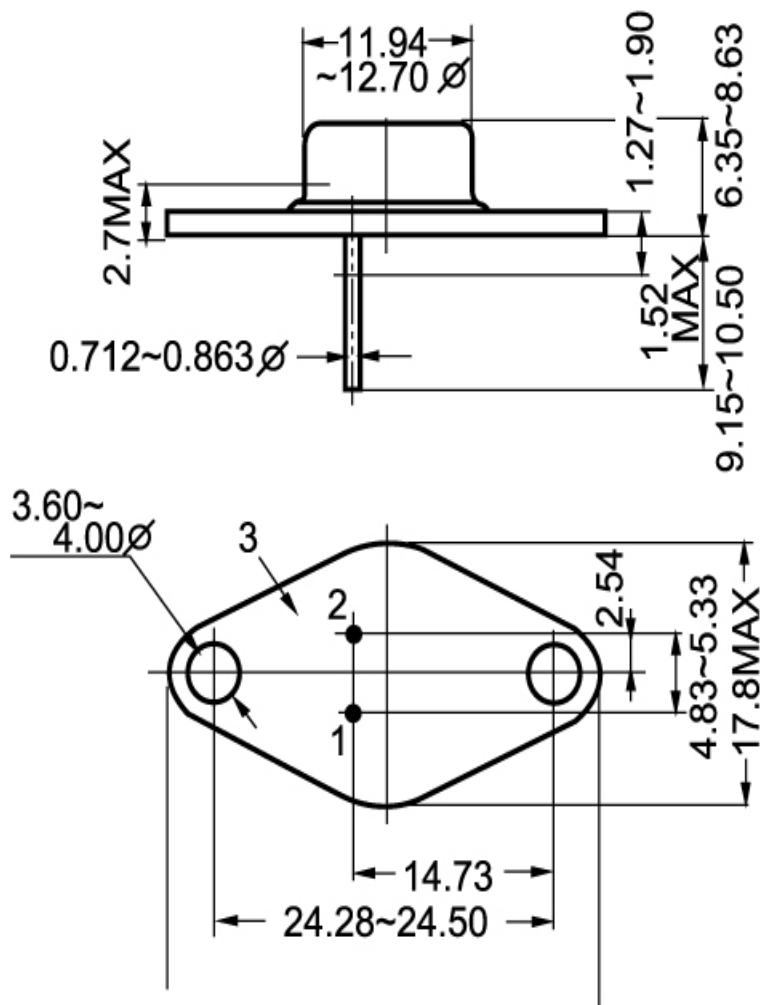


Fig.2 outline dimensions