

Silicon NPN Power Transistors

2SC1431

DESCRIPTION

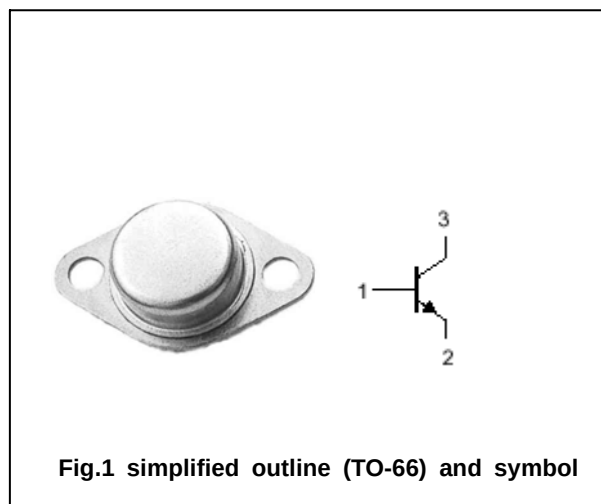
- With TO-66 package
- Excellent safe operating area

APPLICATIONS

- For use in high frequency power amplifier applications.

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

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

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	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	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V$; $I_C=0$			10	μA
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

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PACKAGE OUTLINE

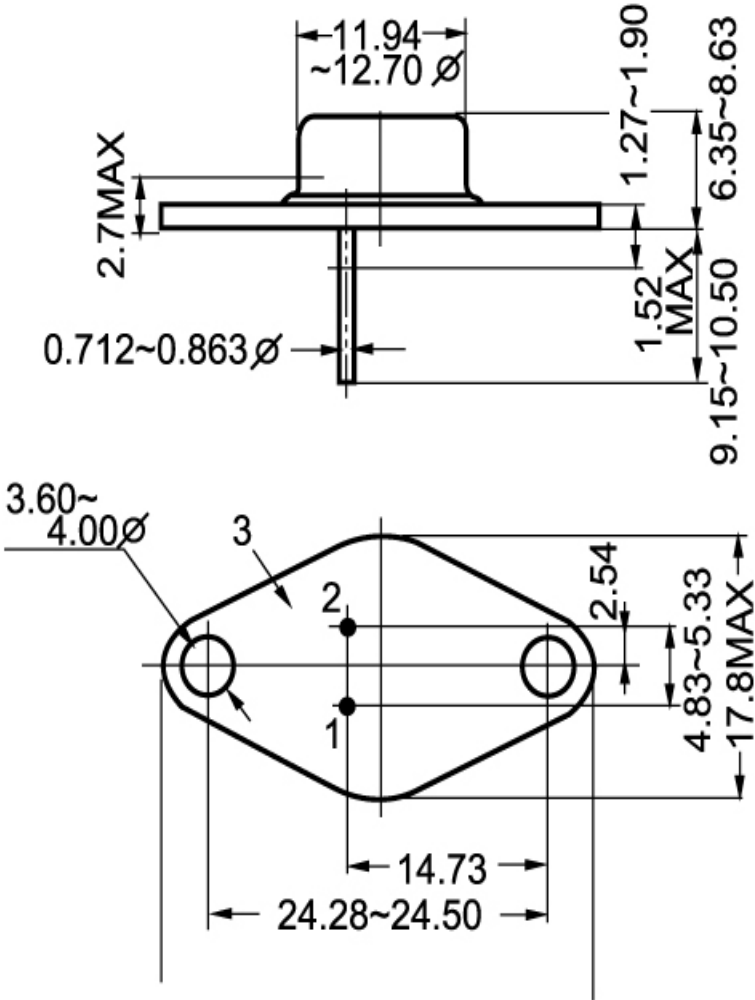


Fig.2 outline dimensions