

## Silicon NPN Power Transistors

## 2SC1431

**DESCRIPTION**

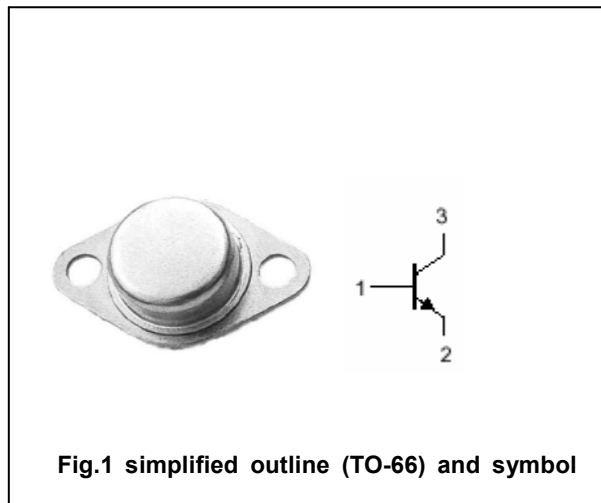
- With TO-66 package
- Excellent safe operating area

**APPLICATIONS**

- For use in high frequency power amplifier applications.

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	110	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	110	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		2	A
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25□	23	W
T <sub>j</sub>	Junction temperature		150	□
T <sub>stg</sub>	Storage temperature		-55~150	□

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## 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> =50mA ; I <sub>B</sub> =0	110			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA ; I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =1A; I <sub>B</sub> =0.1A			1.0	V
V <sub>BE sat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =1A; I <sub>B</sub> =0.1A			1.2	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =110V; I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			10	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =0.4A ; V <sub>CE</sub> =2V	50		240	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.4A ; V <sub>CE</sub> =10V	30			MHz

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PACKAGE OUTLINE



Fig.2 outline dimensions