

## Silicon NPN Power Transistors

2SC1316

## DESCRIPTION

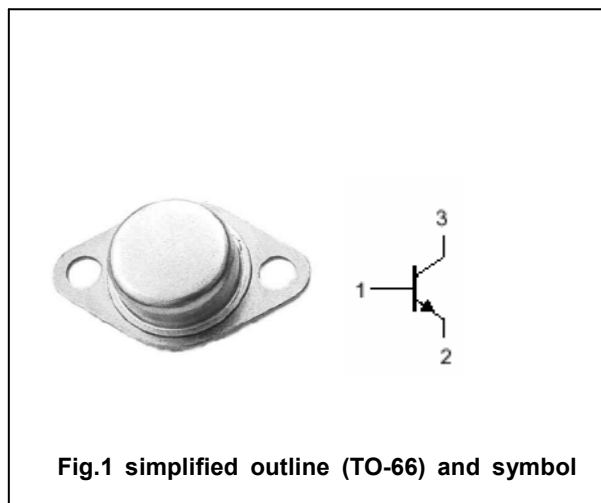
- With TO-66 package
- High breakdown voltage

## APPLICATIONS

- Suitable for switching power supplies in TV sets

## PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings ( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	750	V
$V_{CEO}$	Collector-emitter voltage	Open base	750	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		2	A
$P_C$	Collector 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<sub>j</sub>=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =10mA ; I <sub>B</sub> =0	750			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> =0.2A			3.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =1A ; I <sub>B</sub> =0.2A			1.2	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =750V; I <sub>E</sub> =0			100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			100	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =2A ; V <sub>CE</sub> =3V	4		14	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =10V		8.5		MHz

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PACKAGE OUTLINE

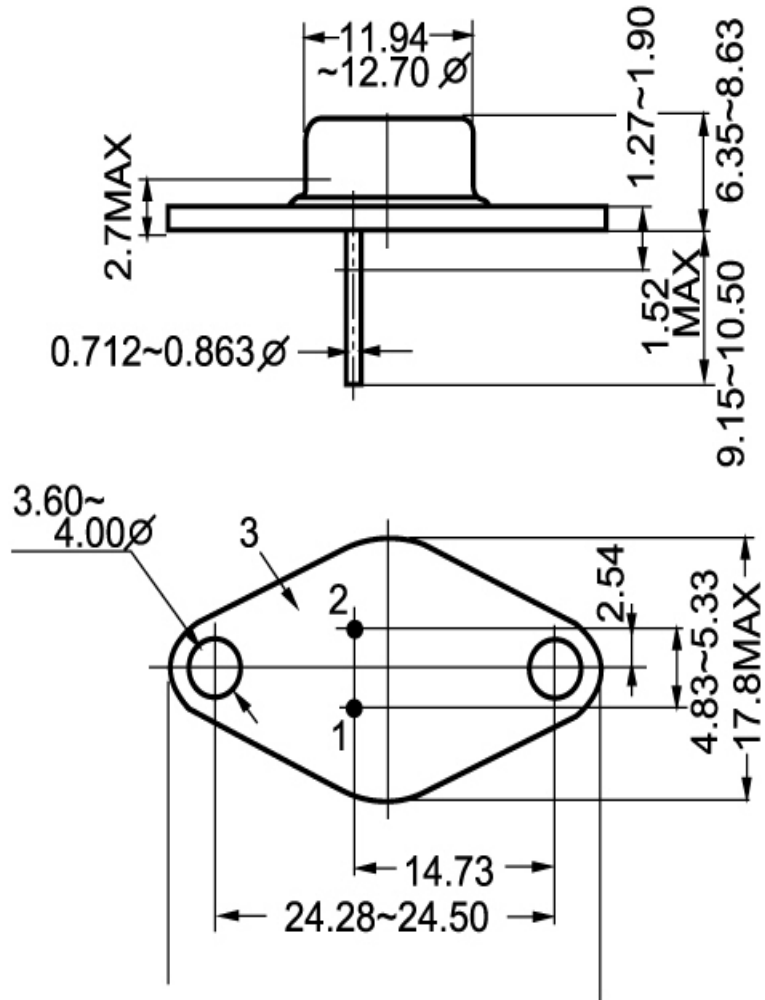


Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)