

**Silicon NPN Power Transistors**

**2SC2965**

**DESCRIPTION**

- With TO-3 package
- High breakdown voltage
- Fast switching speed.
- Wide area of safe operation

**APPLICATIONS**

- For switching regulator applications

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

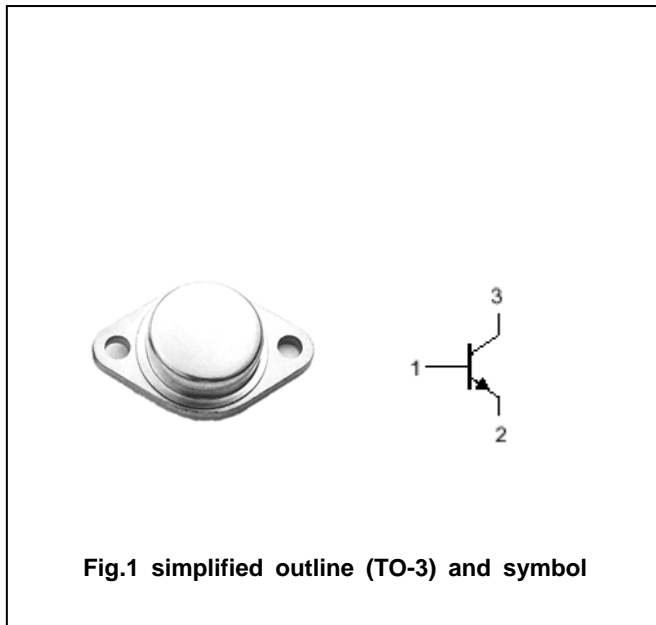


Fig.1 simplified outline (TO-3) and symbol

**ABSOLUTE MAXIMUM RATINGS( $T_C=25^{\circ}C$ )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	600	V
$V_{CEO}$	Collector-emitter voltage	Open base	450	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		15	A
$P_C$	Collector power dissipation	$T_C=25^{\circ}C$	150	W
$T_j$	Junction temperature		150	$^{\circ}C$
$T_{stg}$	Storage temperature		-55~150	$^{\circ}C$

## Silicon NPN Power Transistors

## 2SC2965

## 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> =5mA ; R <sub>BE</sub> =∞	450			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =1mA ; I <sub>E</sub> =0	600			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA ; I <sub>C</sub> =0	7			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =10A; I <sub>B</sub> =2A			1.5	V
V <sub>BE(sat)</sub>	Base-emitter saturation voltage	I <sub>C</sub> =10A; I <sub>B</sub> =2A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =500V ; I <sub>E</sub> =0			100	μ A
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			100	μ A
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =10A ; V <sub>CE</sub> =5V	7		20	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =2A ; V <sub>CE</sub> =10V		28		MHz
C <sub>OB</sub>	Collector output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =10V,f=1MHz		230		pF

PACKAGE OUTLINE

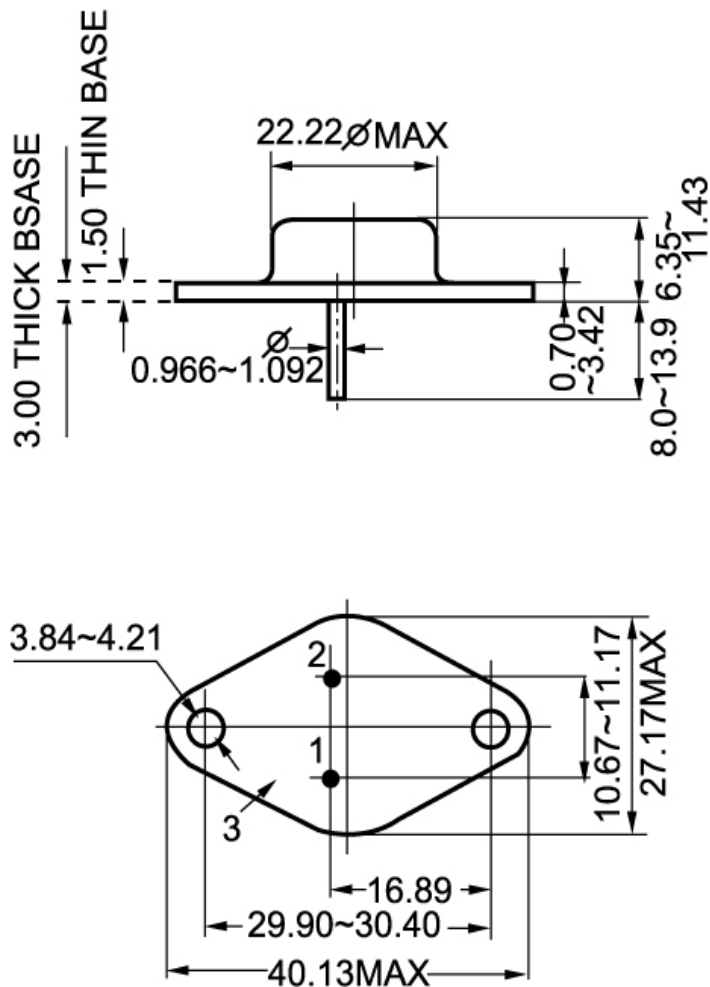


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1$ mm)