

Silicon NPN Power Transistors

2SC3637

**DESCRIPTION**

- With TO-3PN package
- High voltage ,high speed
- High reliability

**APPLICATIONS**

- Ultrahigh-definition CRT display horizontal deflection output applications

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

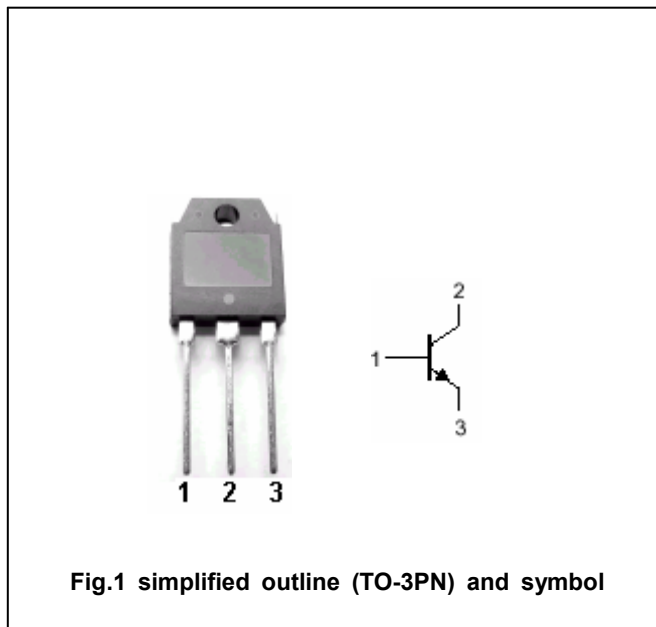


Fig.1 simplified outline (TO-3PN) and symbol

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	900	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	500	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current		10	A
I <sub>CM</sub>	Collector current-peak		20	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25□	90	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>CE0(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =100mA ; I <sub>B</sub> =0	500			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =5A ; I <sub>B</sub> =1A			2.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =5A ; I <sub>B</sub> =1A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =500V ; I <sub>E</sub> =0			10	μA
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =900V ; R <sub>BE</sub> =0			0.5	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V ; I <sub>C</sub> =0			1.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	8			

## Switching times

t <sub>s</sub>	Storage time	V <sub>CC</sub> =200V ; I <sub>C</sub> =5A ; I <sub>B1</sub> =1A ; I <sub>B2</sub> =-2A			3.0	μs
t <sub>f</sub>	Fall time			0.1	0.2	μs

PACKAGE OUTLINE

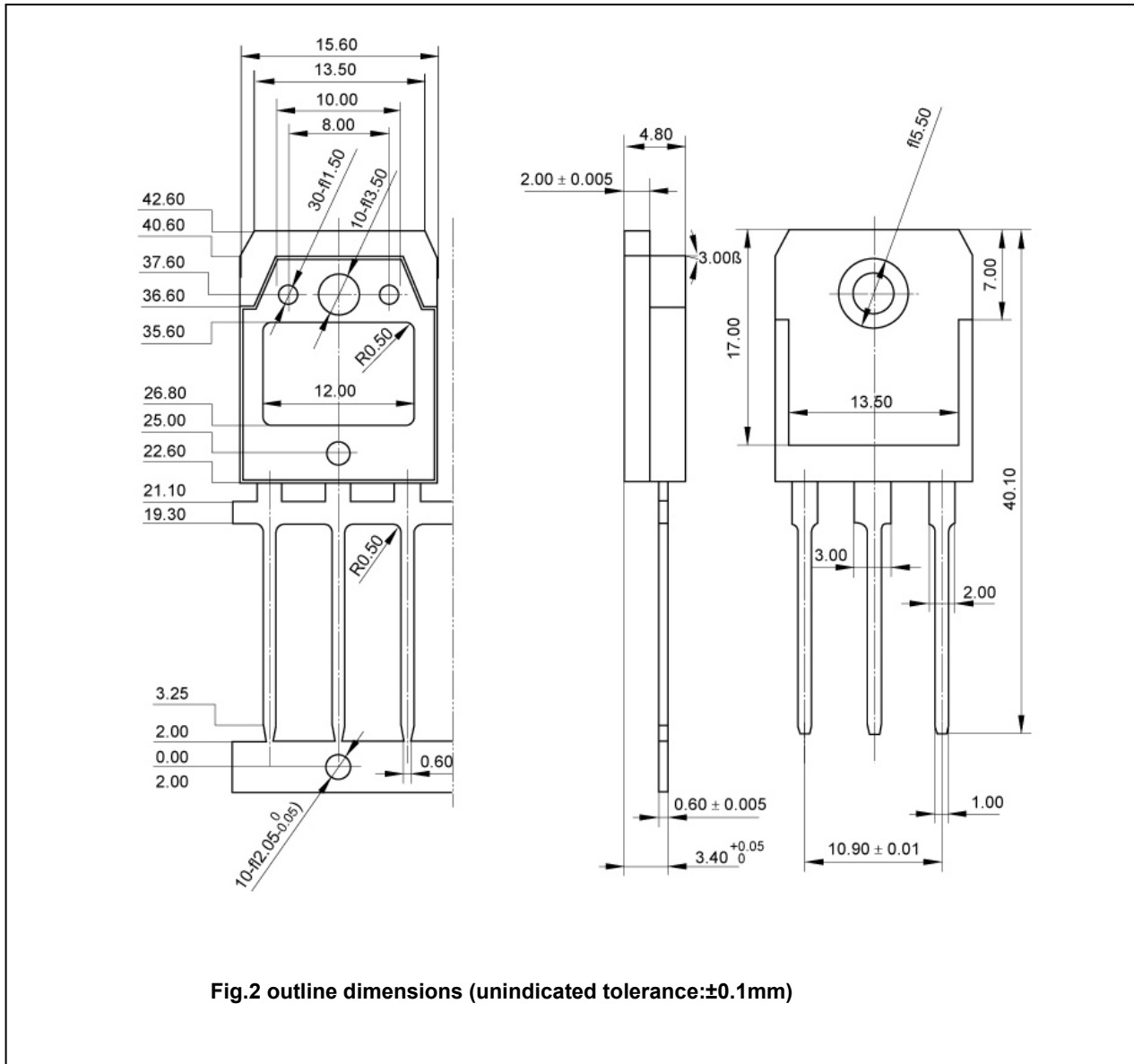


Fig.2 outline dimensions (unindicated tolerance:  $\pm$ 0.1mm)

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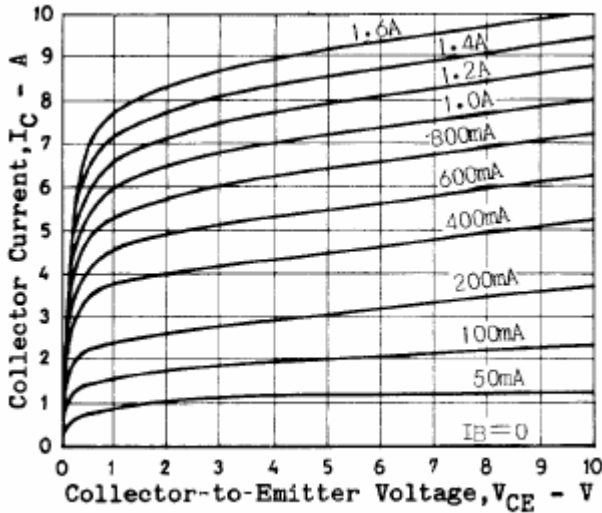


Fig.3 Static Characteristic

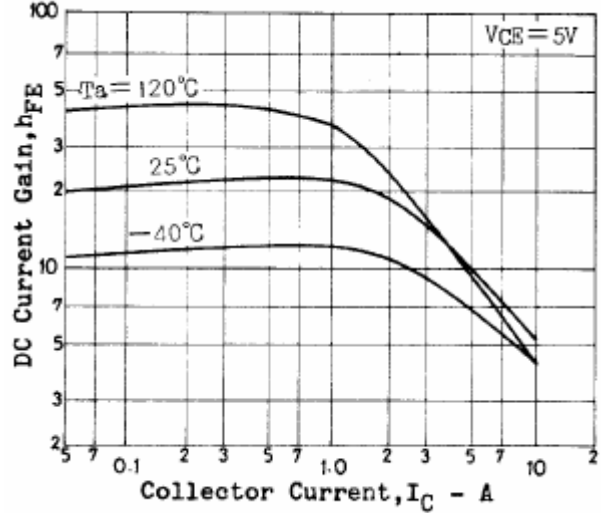


Fig.4 DC current Gain

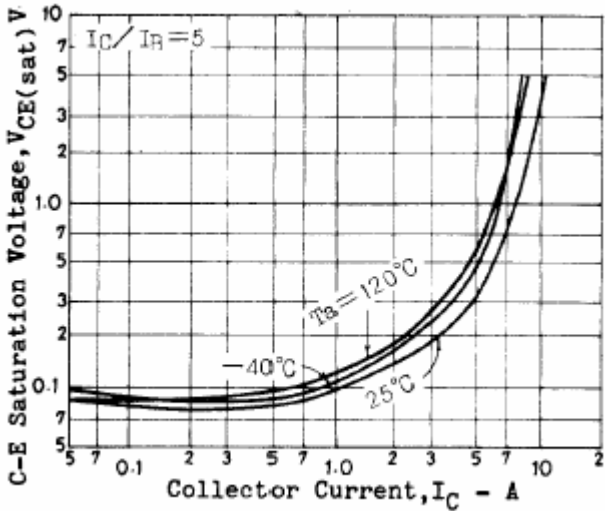


Fig.5 Collector-Emitter Saturation Voltage

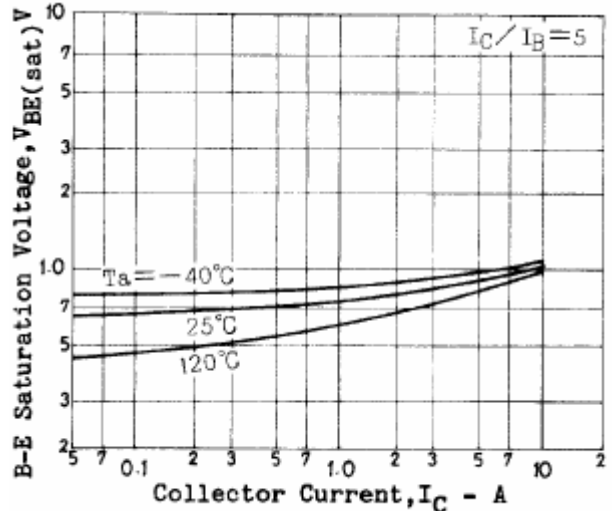


Fig.6 Base-Emitter Saturation Voltage

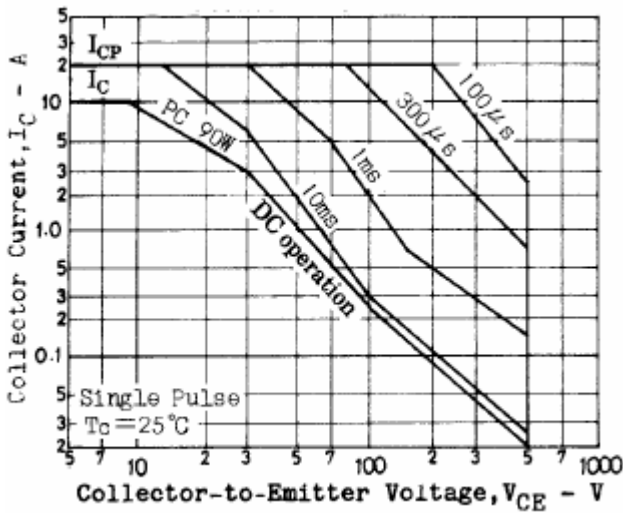


Fig.7 Safe Operating Area