

**Silicon NPN Power Transistors**

**2SC3528**

**DESCRIPTION**

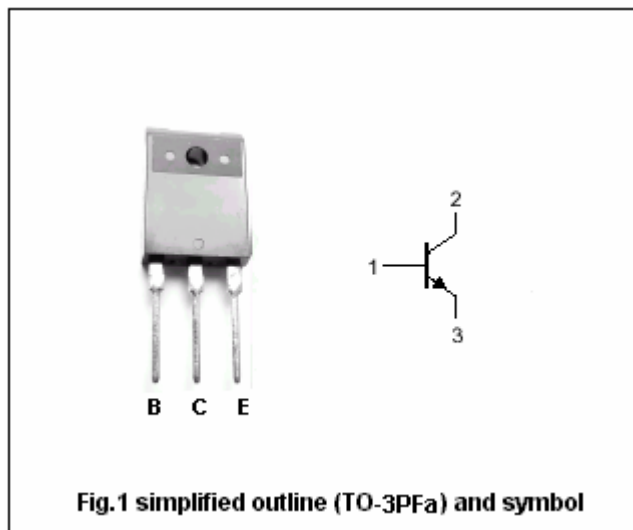
- With TO-3PFa package
- High collector current
- Low saturation voltage

**APPLICATIONS**

- For high voltatge ,high speed power switching applications

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



**ABSOLUTE MAXIMUM RATINGS(T<sub>C</sub>=25℃)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	500	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	400	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current		20	A
I <sub>CP</sub>	Collector current-peak		30	A
I <sub>B</sub>	Base current		6	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25℃	125	W
		T <sub>a</sub> =25℃	3	
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> =0.5A ; L=25mH	400			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =10A; I <sub>B</sub> =2A			1.0	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			0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7V; I <sub>C</sub> =0			0.1	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =2A ; V <sub>CE</sub> =5V	15			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =10A ; V <sub>CE</sub> =5V	10			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =1A ; V <sub>CE</sub> =10V; f=1.0MHz		15		MHz

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =10A; I <sub>B1</sub> =-I <sub>B2</sub> =2.0A V <sub>CC</sub> =125V			1.0	μs
t <sub>s</sub>	Storage time				2.5	μs
t <sub>f</sub>	Fall time				1.0	μs

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PACKAGE OUTLINE

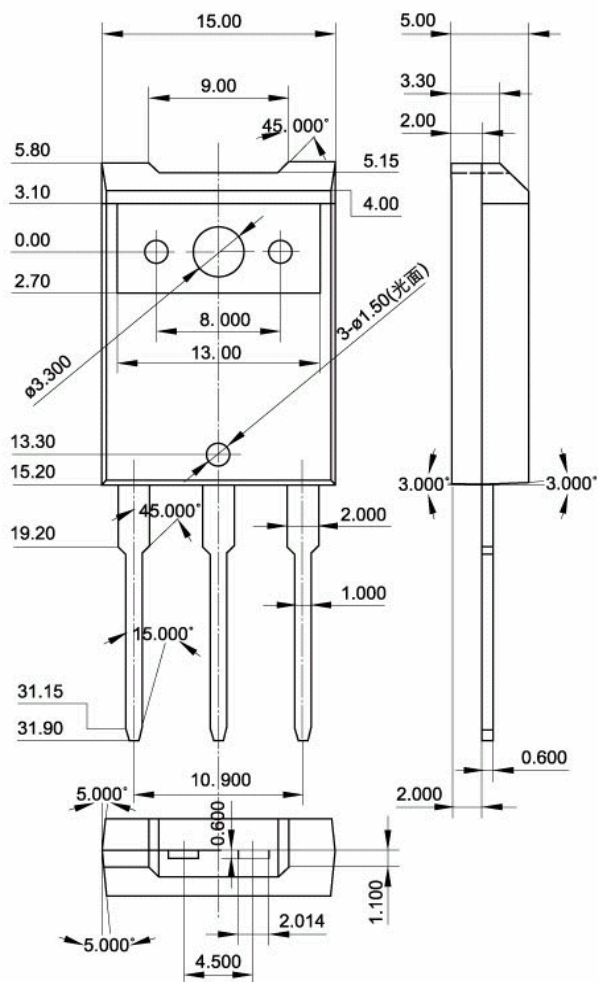


Fig.2 outline dimensions (unindicated tolerance:±0.3mm)