

**Silicon NPN Power Transistors**

**2SC5895**

**DESCRIPTION**

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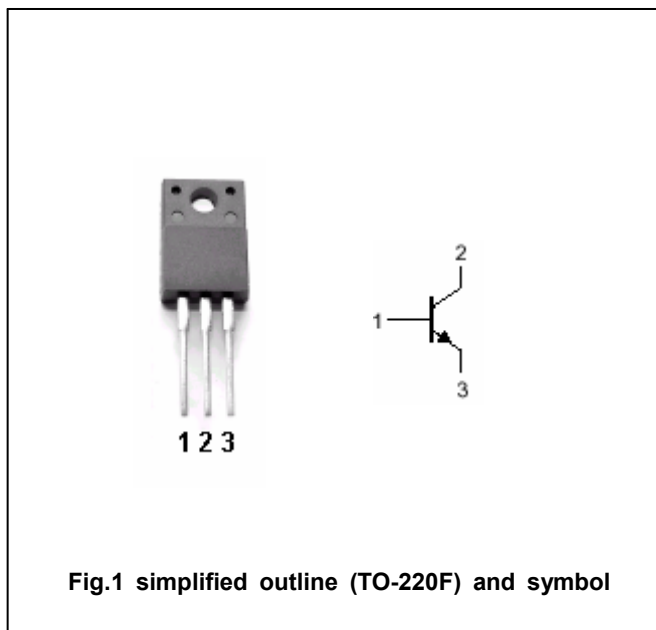
- With TO-220F package
- High speed switching
- Low collector saturation voltage

**APPLICATIONS**

- Power supply for audio and visual equipments such as TVs and VCRs
- Industrial equipments such as DC-DC converters

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



**Absolute maximum ratings (Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	60	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	60	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	6	V
I <sub>C</sub>	Collector current		2	A
I <sub>CM</sub>	Collector current-peak		4	A
P <sub>C</sub>	Collector power dissipation	T <sub>a</sub> =25°C	2	W
		T <sub>C</sub> =25°C	15	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2A; I <sub>B</sub> =0.25 A			0.5	V
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =10mA; I <sub>B</sub> =0	60			V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =60V; I <sub>E</sub> =0			100	μA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =60V; I <sub>B</sub> =0			100	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =0.2A ; V <sub>CE</sub> =4V	60			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =4V	80		250	
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =2A ; V <sub>CE</sub> =4V	30			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.1A ; V <sub>CB</sub> =10V;f=10MHz		100		MHz

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =1A; I <sub>B1</sub> =-I <sub>B2</sub> =0.1A V <sub>CC</sub> =50V		0.2		μs
t <sub>stg</sub>	Storage time			0.7		μs
t <sub>f</sub>	Fall time			0.15		μs

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PACKAGE OUTLINE

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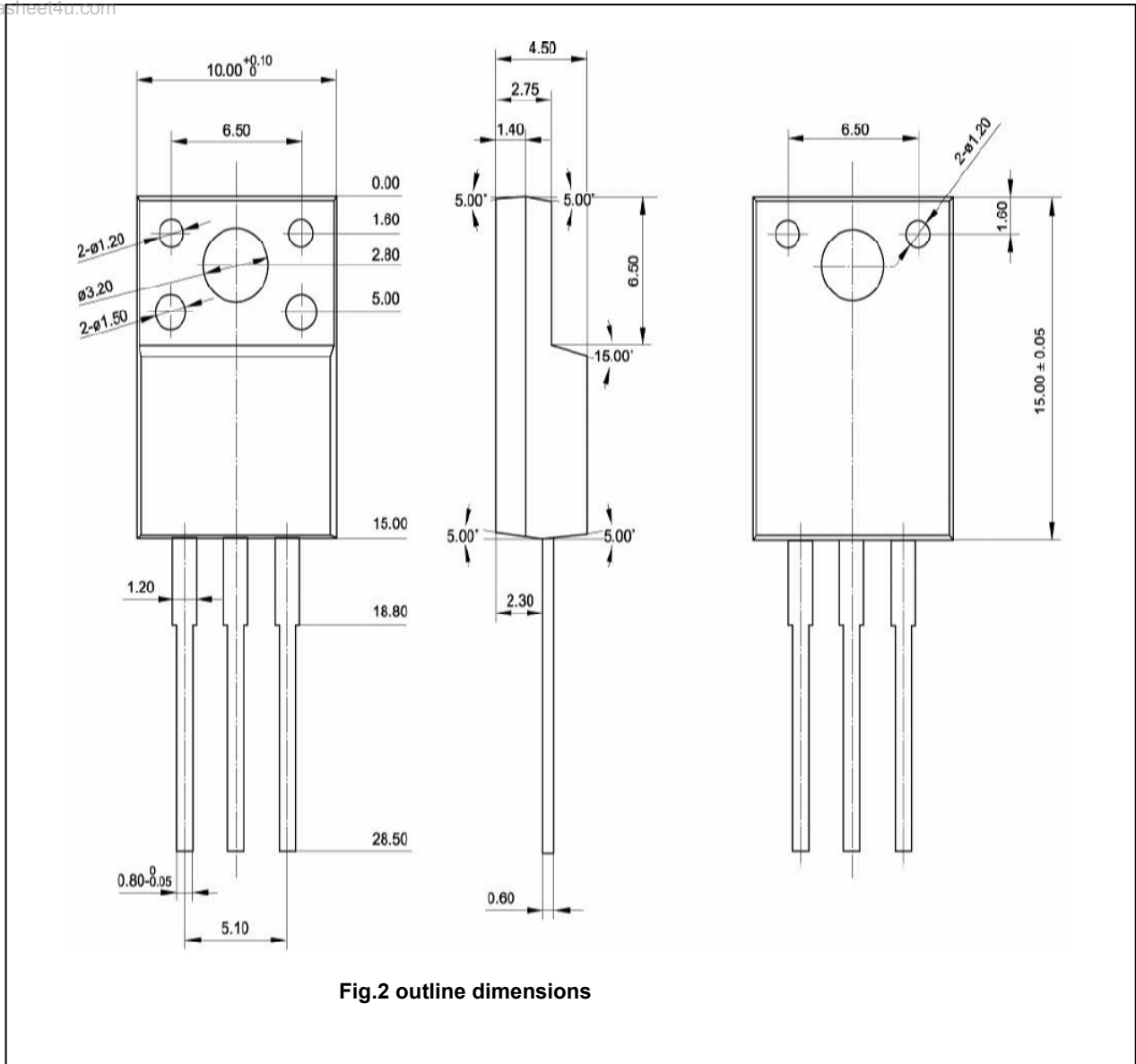


Fig.2 outline dimensions