

**Silicon NPN Power Transistors**

**2SD2061**

**DESCRIPTION**

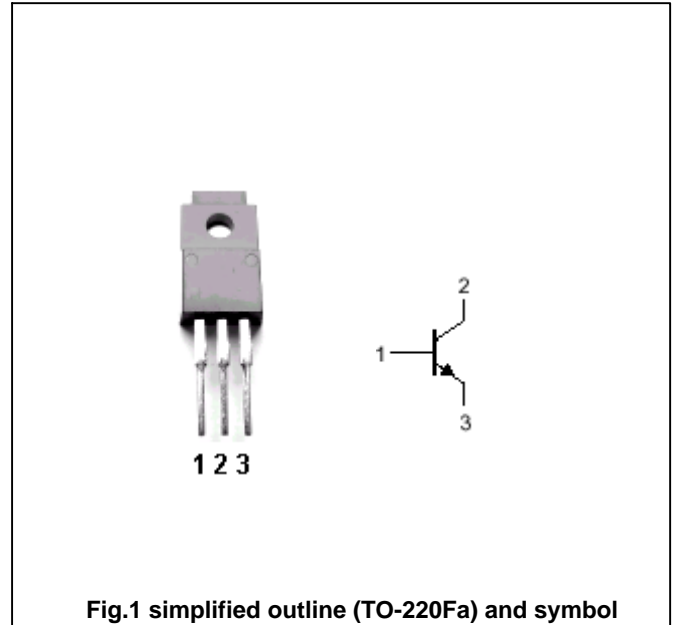
- With TO-220Fa package
- Low saturation voltage
- Excellent DC current gain characteristics
- Wide safe operating area

**APPLICATIONS**

- For low frequency power amplifier applications

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	emitter



**ABSOLUTE MAXIMUM RATINGS AT Tc=25**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	80	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	60	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>c</sub>	Collector current (DC)		3	A
I <sub>CM</sub>	Collector current-Peak		6	A
P <sub>C</sub>	Collector power dissipation	T <sub>c</sub> =25	30	W
P <sub>C</sub>	Collector power dissipation	T <sub>a</sub> =25	2	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 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =1mA, I <sub>B</sub> =0	60			V
V <sub>CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =50 μA, I <sub>E</sub> =0	80			V
V <sub>EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =50 μA, I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2A I <sub>B</sub> =0.2A			1.0	V
V <sub>BEsat</sub>	Emitter-base saturation voltage	I <sub>C</sub> =2A I <sub>B</sub> =0.2A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =60V I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =4V; I <sub>C</sub> =0			10	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =0.5A; V <sub>CE</sub> =5V	100		320	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A; V <sub>CE</sub> =5V		8		MHz
C <sub>ob</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =10V, f=1MHz		70		Pf

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PACKAGE OUTLINE

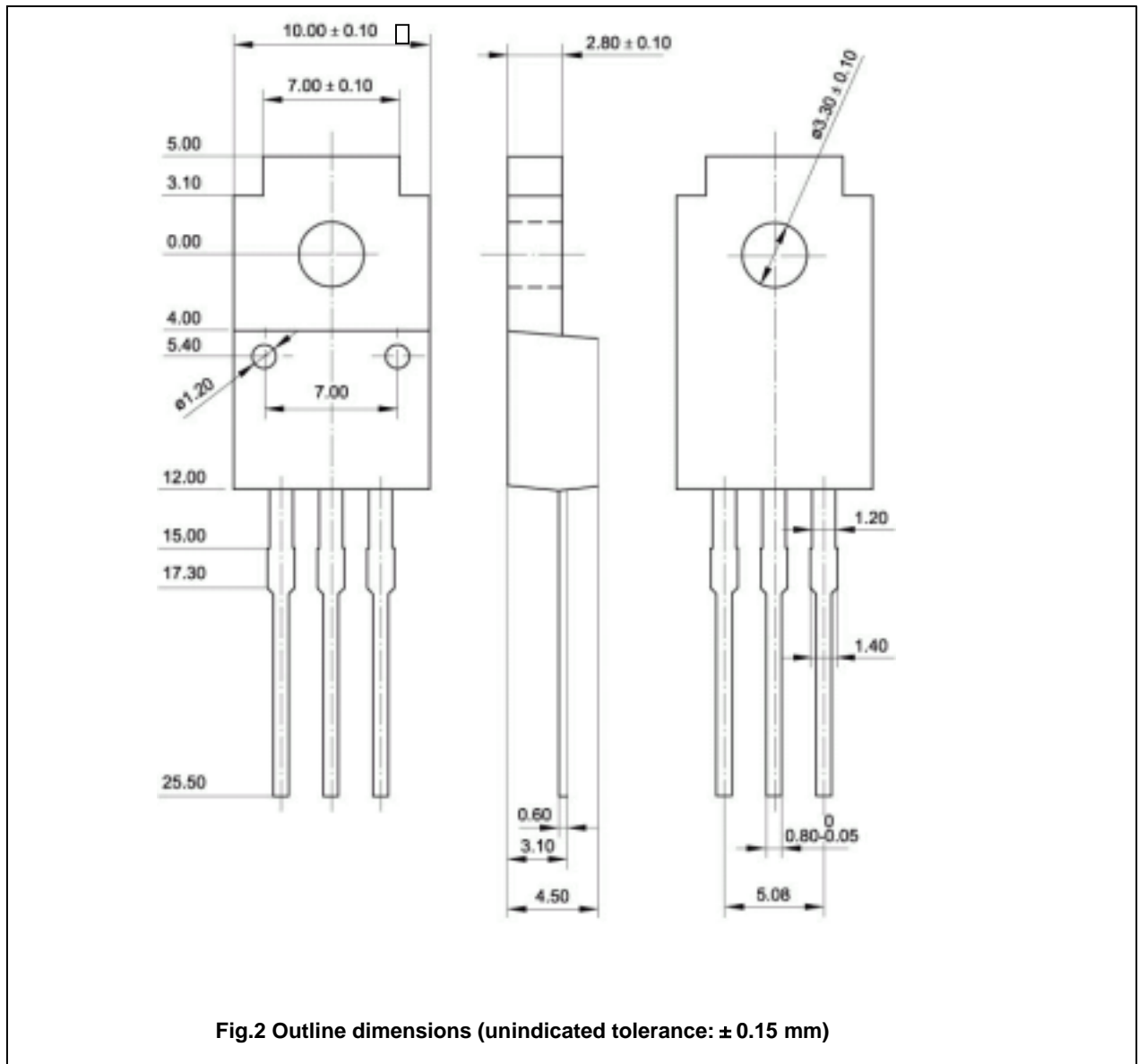


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.15$  mm)