

Silicon PNP Power Transistors

2SB1640

**DESCRIPTION**

- With ITO-220 package
- Low collector saturation voltage
- Complement to type 2SD2525

**APPLICATIONS**

- Audio frequency power amplifier

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

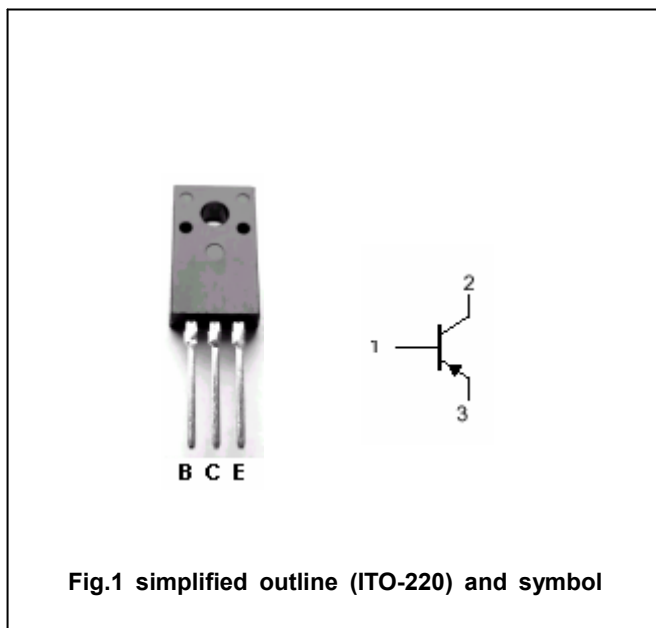


Fig.1 simplified outline (ITO-220) and symbol

**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	-7	V
I <sub>C</sub>	Collector current		-3	A
I <sub>B</sub>	Base current		-0.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	1.8	W
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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-50mA ; I <sub>B</sub> =0	-60			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-2A; I <sub>B</sub> =-0.2A		-1.0	-1.5	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-5V		-0.75	-1.0	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> =-7V ; I <sub>C</sub> =0			-10	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-5V	100		320	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-2A ; V <sub>CE</sub> =-5V	15			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-5V		9		MHz
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =-10V; f=1MHz		50		pF

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PACKAGE OUTLINE

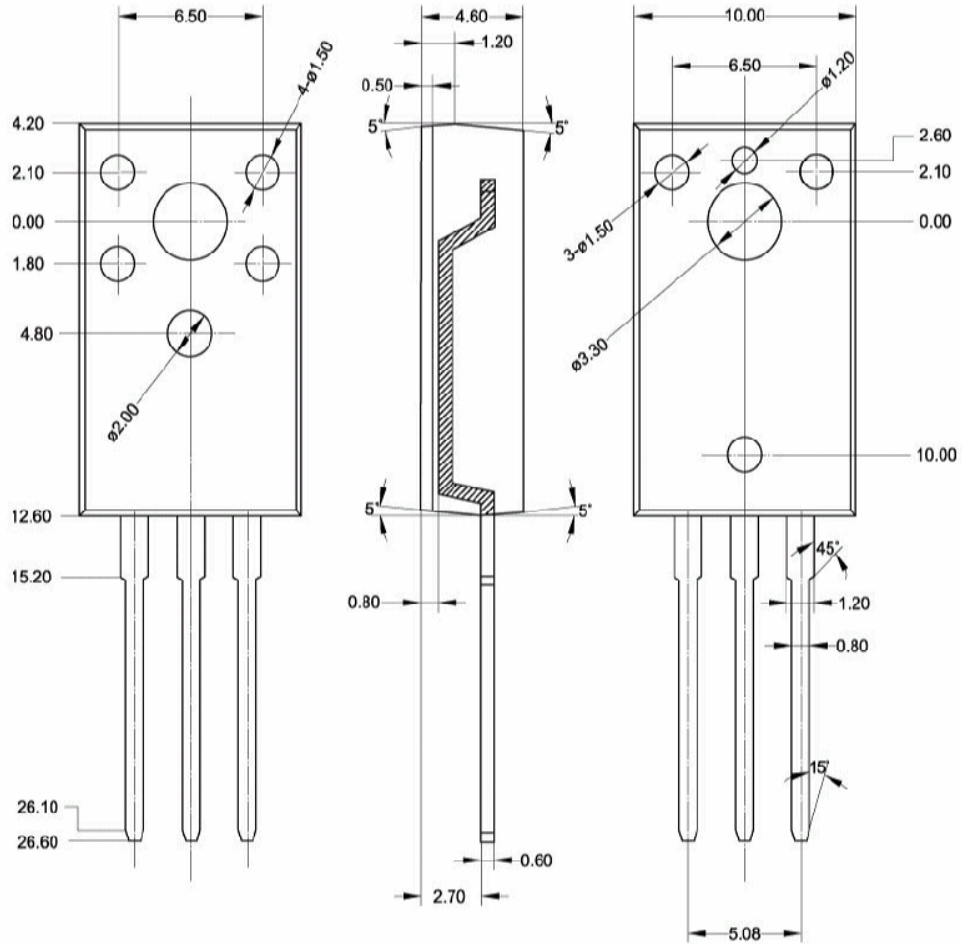


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.20$  mm)