

**Silicon PNP Power Transistors**

**2SB1658**

**DESCRIPTION**

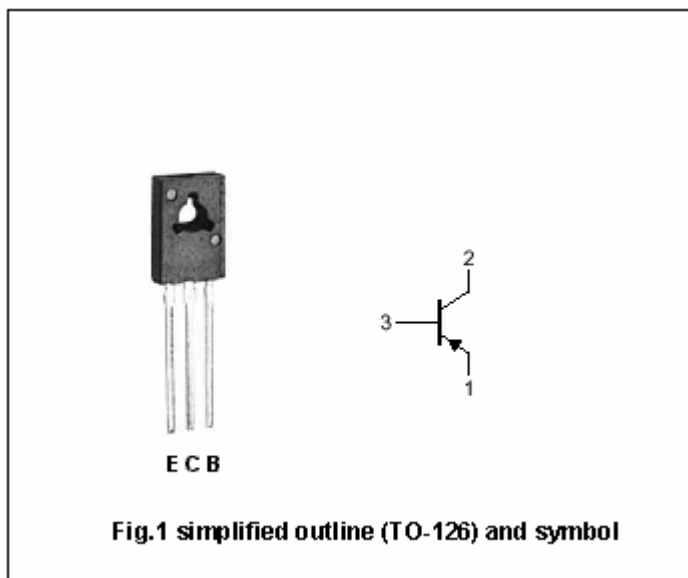
- With TO-126 package
- Low collector saturation voltage
- High DC current gain

**APPLICATIONS**

- For audio frequency amplifier and switching applications

**PINNING**

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



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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-30	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-30	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-6	V
I <sub>C</sub>	Collector current (DC)		-5	A
I <sub>CM</sub>	Collector current-Peak		-10	A
I <sub>B</sub>	Base current (DC)		-2	A
P <sub>T</sub>	Total power dissipation	T <sub>a</sub> =25	0.1	W
		T <sub>C</sub> =25	10	
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>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-10mA ; I <sub>B</sub> =0	-30			V
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-1A; I <sub>B</sub> =-50mA			-0.15	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-2A; I <sub>B</sub> =-100mA			-0.25	V
V <sub>CEsat-3</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-4A; I <sub>B</sub> =-200mA			-0.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-1A; I <sub>B</sub> =-100mA			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-30V; I <sub>E</sub> =0			-0.1	μ A
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-6V; I <sub>C</sub> =0			-0.1	μ A
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-2V	150		600	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-4A ; V <sub>CE</sub> =-2V	50			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-50mA ; V <sub>CE</sub> =-10V		95		MHz
C <sub>OB</sub>	Collector output capacitance	I <sub>E</sub> =0; f=1MHz ; V <sub>CB</sub> =-10V		100		pF

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PACKAGE OUTLINE

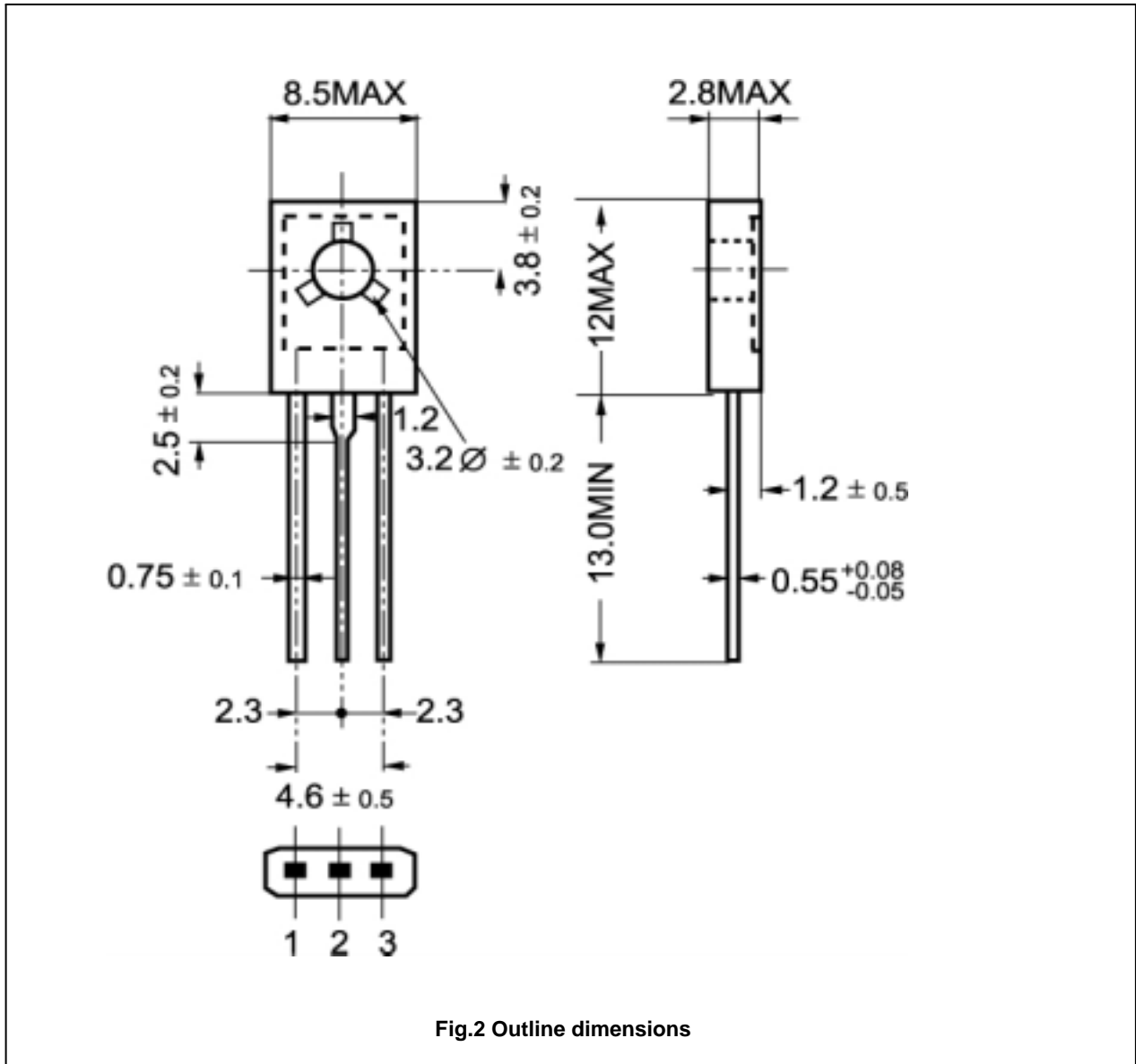


Fig.2 Outline dimensions