

**Silicon NPN Power Transistors**

**2SC1846**

**DESCRIPTION**

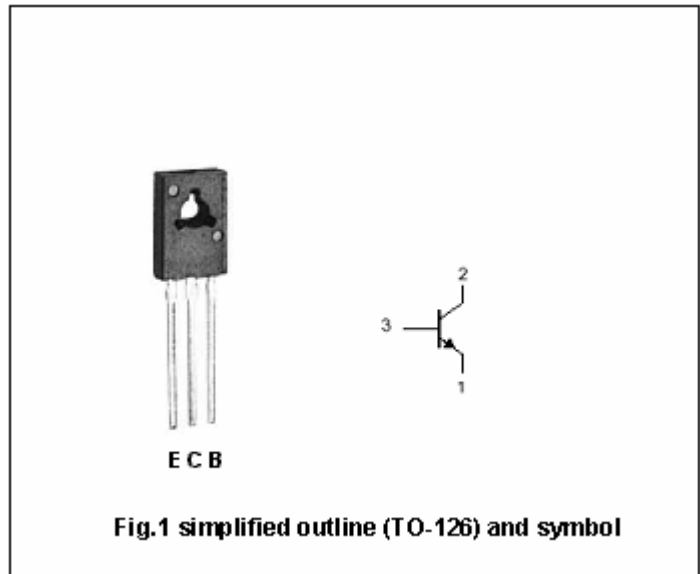
- With TO-126 package
- Complement to type 2SA885
- Low collector saturation

**APPLICATIONS**

- For medium output power amplification

**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	45	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	35	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current (DC)		1	A
I <sub>CM</sub>	Collector current-peak		1.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25	1.2 <sup>*1</sup>	W
			5 <sup>*2</sup>	
T <sub>j</sub>	Junction temperature		150	
T <sub>stg</sub>	Storage temperature		-55~150	

Note) \*1: Without heat sink

\*2: With a 100 × 100 × 2 mm A1 heat sink

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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> =2mA; I <sub>B</sub> =0	35			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =1mA; I <sub>E</sub> =0	45			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =0.5A; I <sub>B</sub> =50mA			0.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =20V; I <sub>E</sub> =0			0.1	μA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =20V; I <sub>B</sub> =0			100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; 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> =10V	85		340	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =1A; V <sub>CE</sub> =5V	50			
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =10V; f=1MHz			20	pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =50mA; V <sub>CB</sub> =10V, f=200MHz		200		MHz

◆ h<sub>FE-1</sub> Classifications

Q	R	S
85-170	120-240	170-340

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PACKAGE OUTLINE

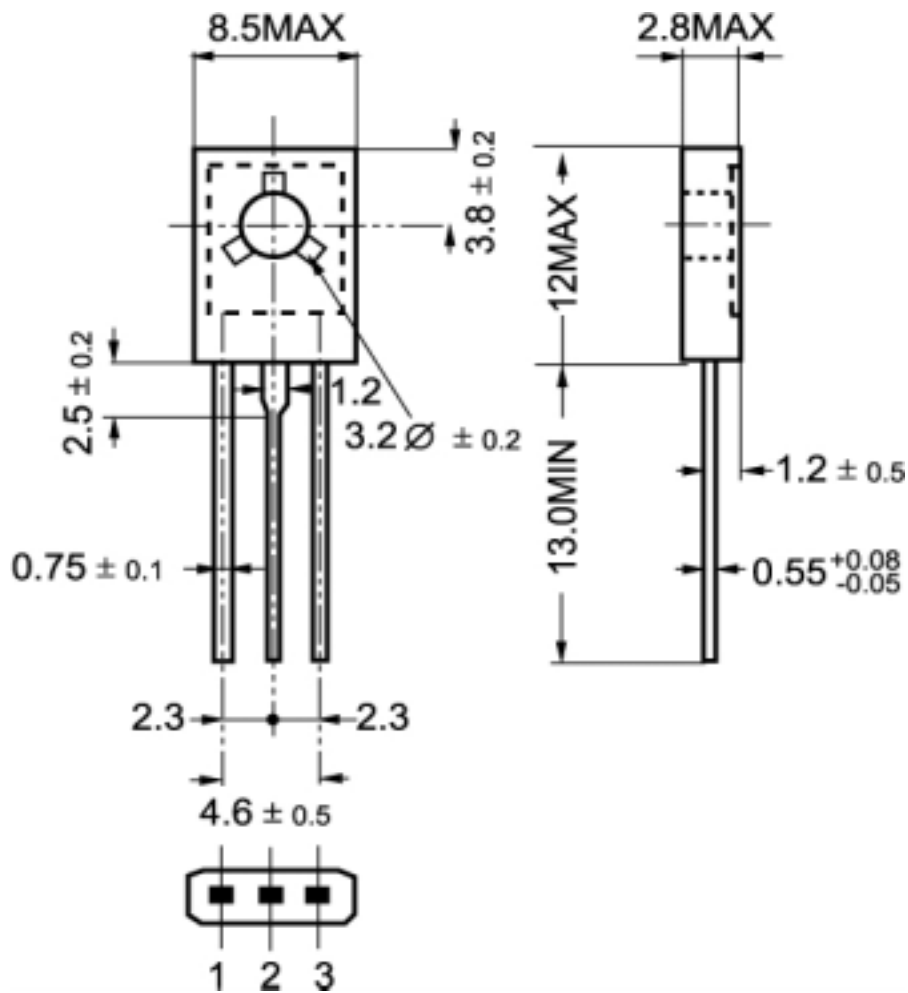


Fig.2 Outline dimensions

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