

Inchange Semiconductor

Product Specification

Silicon PNP Power Transistors

2SA1096 2SA1096A

DESCRIPTION

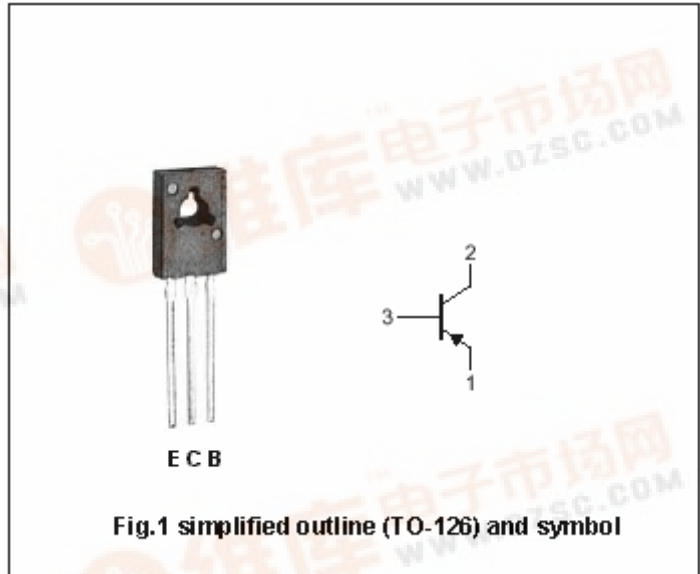
- With TO-126 package
- Complement to type 2SC2497/2SC2497A

APPLICATIONS

- For low-frequency power amplification

PINNING

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



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-70	V
V <sub>CEO</sub>	Collector- emitter voltage	2SA1096	-50	V
		2SA1096A	-60	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-2	A
I <sub>CM</sub>	Collector current-peak		-3	A
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25°C	1.2 <sup>*1</sup>	W
			5 <sup>*2</sup>	
T <sub>J</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~+150	°C

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°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SA1096	I <sub>C</sub> =-2mA ; I <sub>B</sub> =0	-50			V
		2SA1096A		-60			
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage		I <sub>C</sub> =-1mA ; I <sub>E</sub> =0	-70			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =-1.5A ; I <sub>B</sub> =-0.15A			-1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage		I <sub>C</sub> =-1.5A ; I <sub>B</sub> =-0.15A			-1.5	V
I <sub>CEO</sub>	Collector cut-off current		V <sub>CE</sub> =-10V ; I <sub>B</sub> =0			-1	μ A
I <sub>CBO</sub>	Collector cut-off current		V <sub>CB</sub> =-20V ; I <sub>E</sub> =0			-100	μ A
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =-5V ; I <sub>C</sub> =0			-10	μ A
h <sub>FE</sub>	DC current gain		I <sub>C</sub> =-1A ; V <sub>CE</sub> =-5V	80		220	
C <sub>OB</sub>	Output capacitance		I <sub>E</sub> =0 ; V <sub>CB</sub> =-20V, f=1MHz		55		pF
f <sub>T</sub>	Transition frequency		I <sub>E</sub> =-0.5A ; V <sub>CB</sub> =-5V, f=200MHz		150		MHz

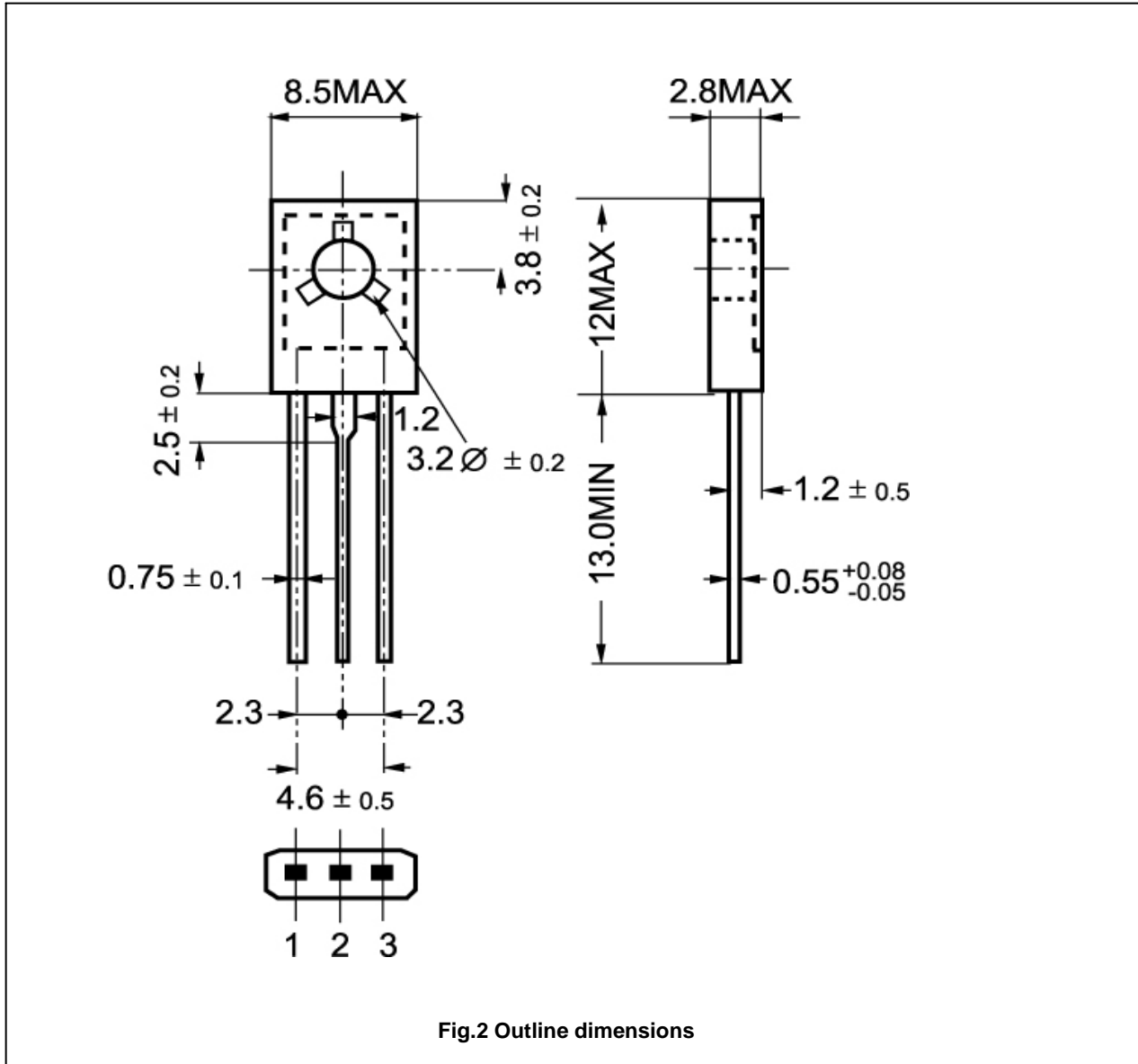
◆ h<sub>FE</sub> Classifications

Q	R
80-160	120-220

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PACKAGE OUTLINE



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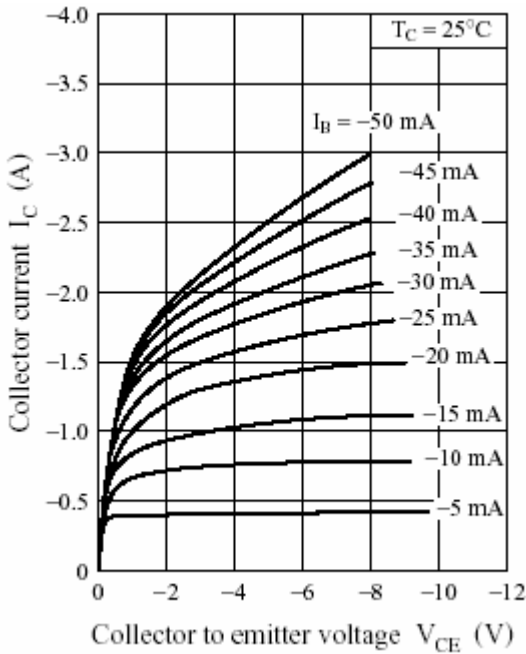


Fig.3 Static Characteristic

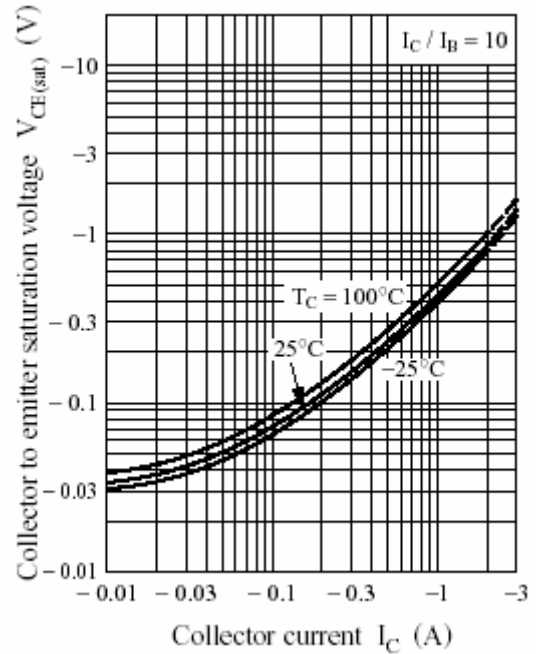


Fig.4 Collector-Emitter Saturation Voltage

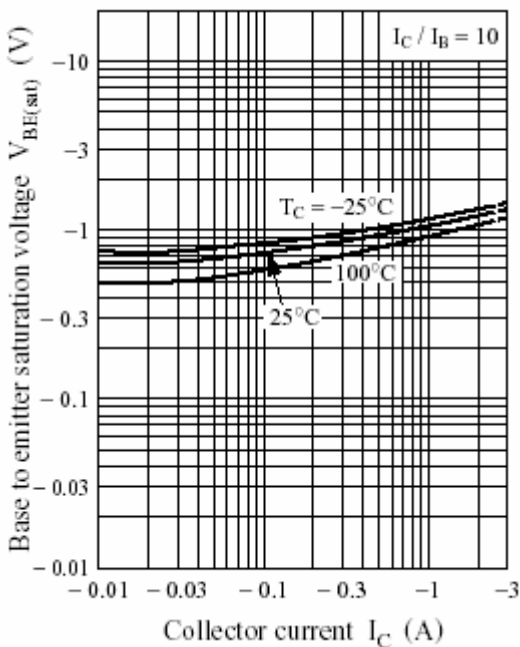


Fig.5 Base-Emitter Saturation Voltage

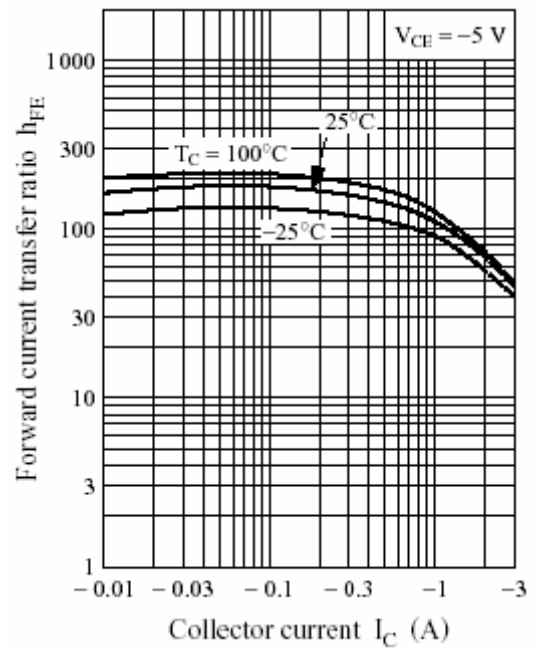


Fig.6 DC current Gain

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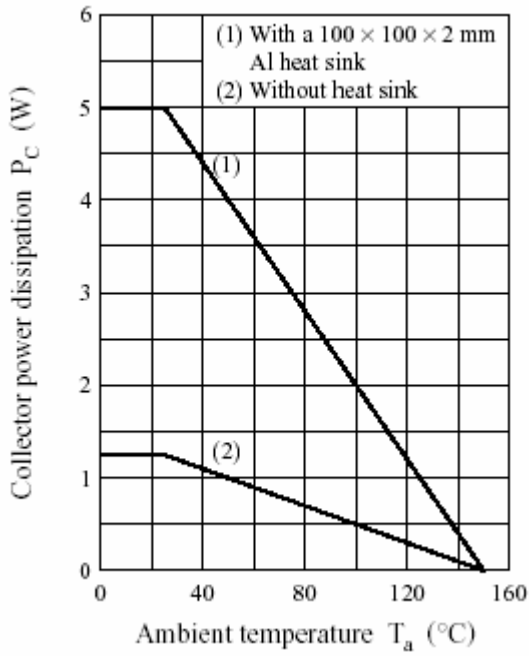


Fig.7 Power Derating

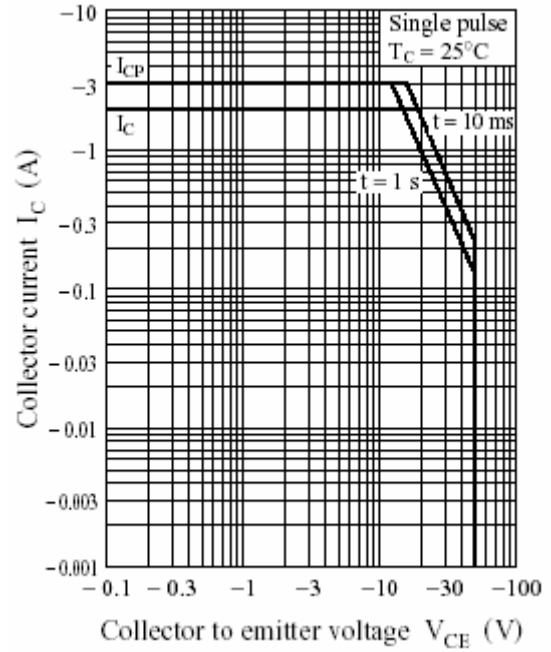


Fig.8 Safe Operating Area