

**Silicon NPN Power Transistors**

**2SC2690 2SC2690A**

**DESCRIPTION**

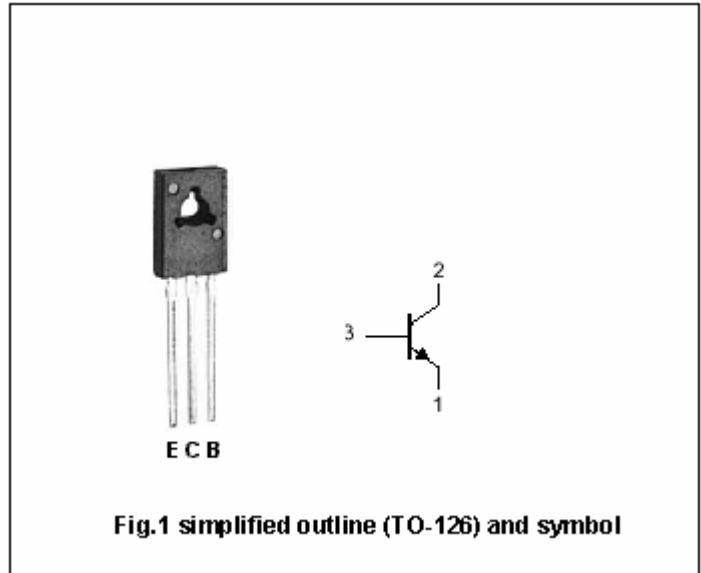
- With TO-126 package
- Complement to type 2SA1220/1220A

**APPLICATIONS**

- For use in audio and radio frequency power amplifiers

**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>CB0</sub>	Collector-base voltage	2SC2690	120	V
		2SC2690A	160	
V <sub>CEO</sub>	Collector-emitter voltage	2SC2690	120	V
		2SC2690A	160	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		1.2	A
I <sub>CM</sub>	Collector current-Peak		2.5	A
I <sub>B</sub>	Base current		0.3	A
P <sub>D</sub>	Total power dissipation	T <sub>a</sub> =25	1.2	W
		T <sub>C</sub> =25	20	
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>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =1A; I <sub>B</sub> =0.2A			0.7	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =1A; I <sub>B</sub> =0.2A			1.3	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =120V; I <sub>E</sub> =0			1	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =3V; I <sub>C</sub> =0			1	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =5mA; V <sub>CE</sub> =5V	35			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =0.3A; V <sub>CE</sub> =5V	60		320	
C <sub>ob</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =10V f=1MHz		19		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.2A; V <sub>CE</sub> =5V		155		MHz

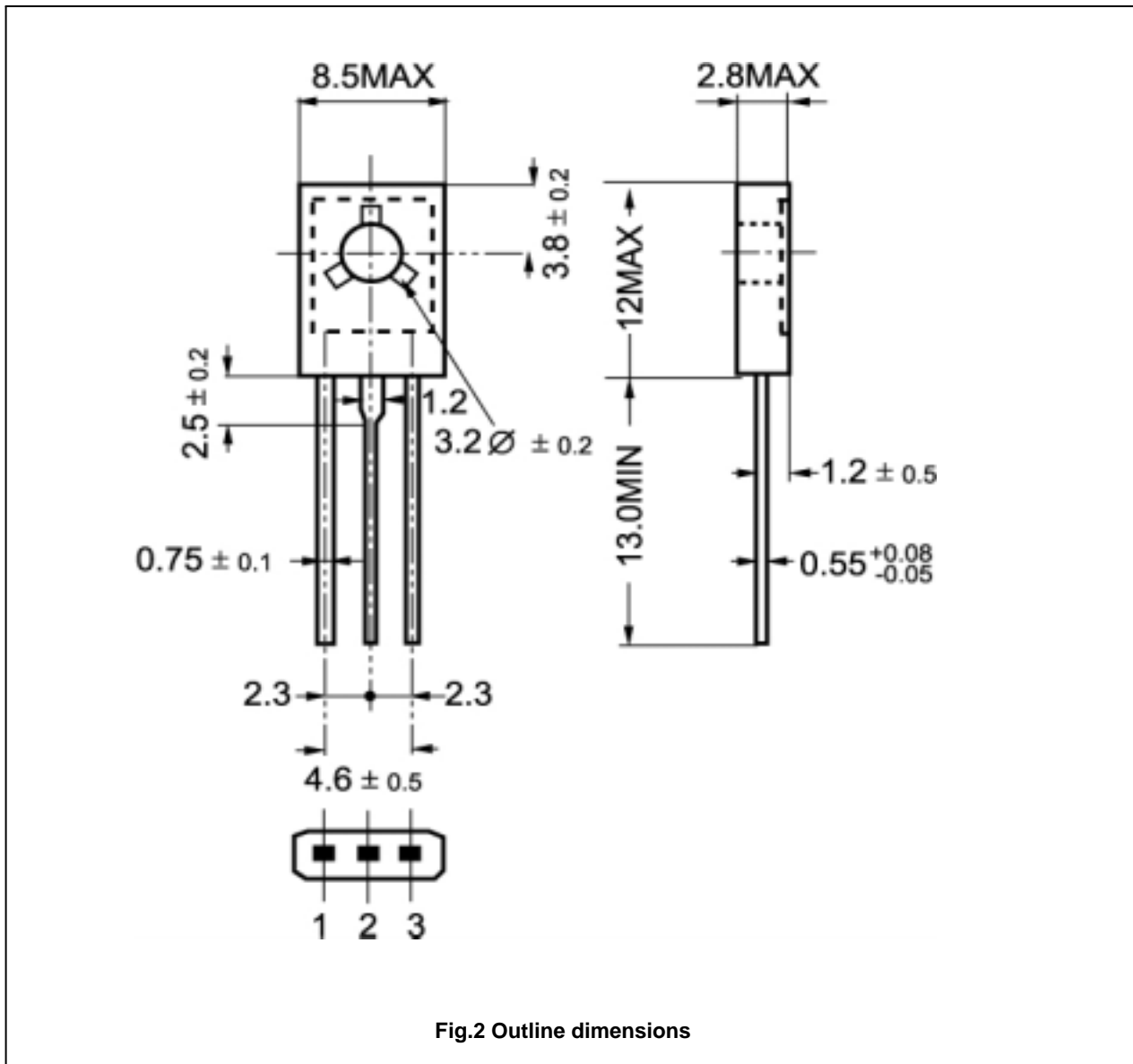
◆ h<sub>FE-2</sub> Classifications

R	Q	P
60-120	100-200	160-320

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PACKAGE OUTLINE



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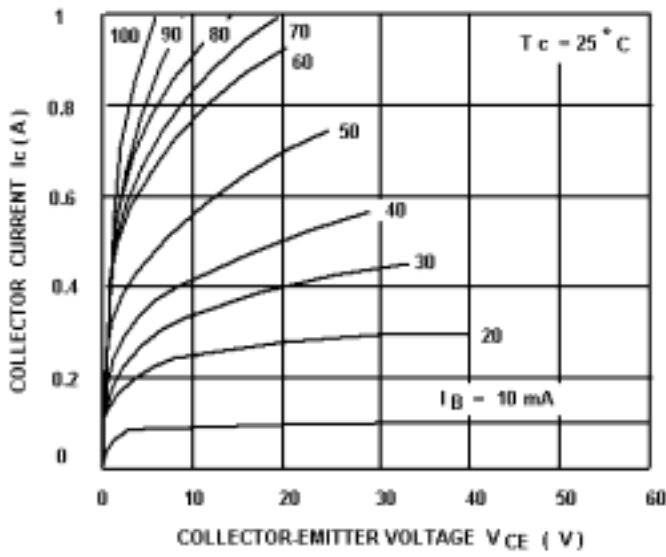


Fig.3 Static Characteristic

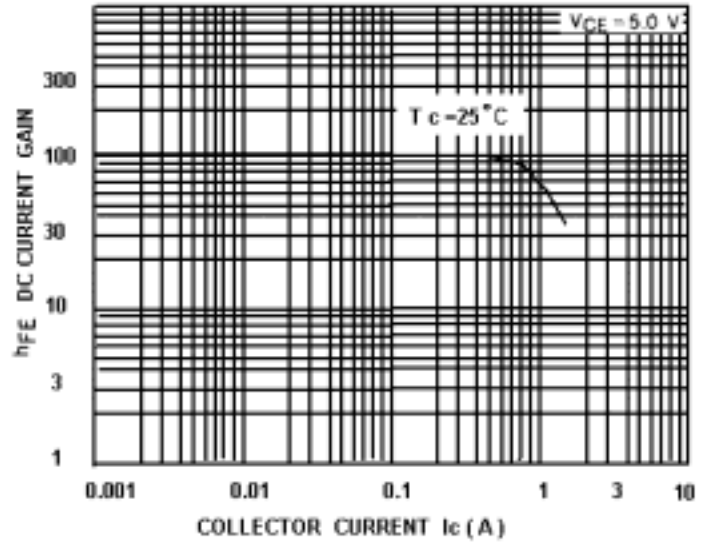


Fig.4 DC current Gain

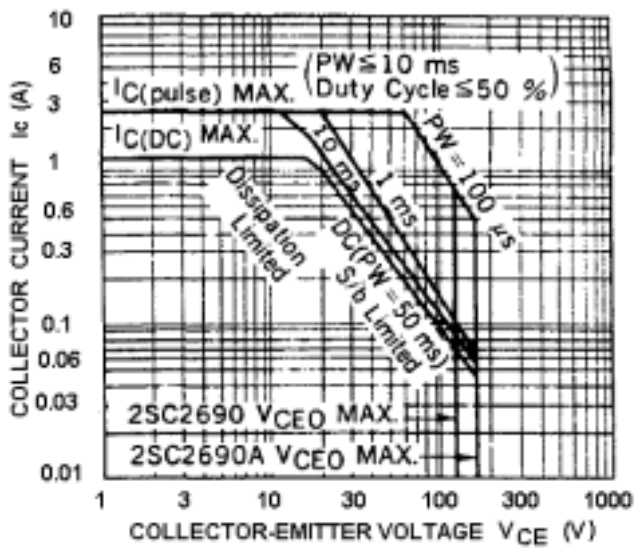


Fig.5 Safe Operating Area