

Silicon NPN Power Transistors

2SC2690 2SC2690A

DESCRIPTION

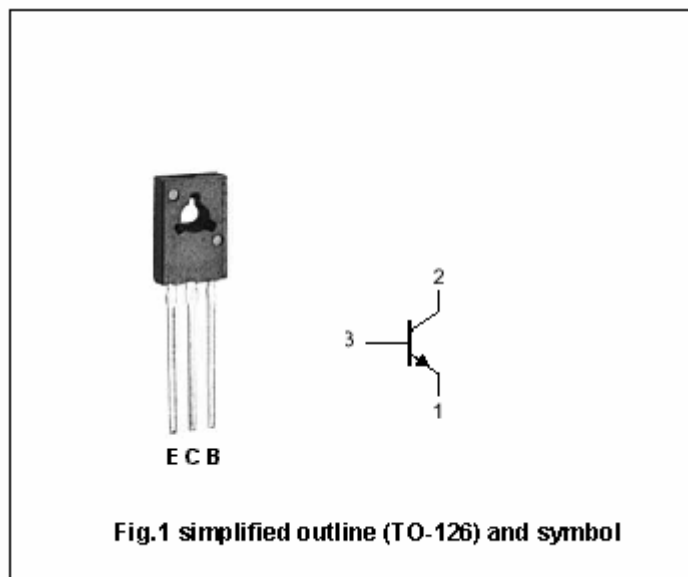
- With TO-126 package
- Complement to type 2SA1220/1220A

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($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC2690	Open emitter	120	V
		2SC2690A		160	
V_{CEO}	Collector-emitter voltage	2SC2690	Open base	120	V
		2SC2690A		160	V
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current			1.2	A
I_{CM}	Collector current-Peak			2.5	A
I_B	Base current			0.3	A
P_D	Total power dissipation	$T_a=25^\circ\text{C}$		1.2	W
		$T_c=25^\circ\text{C}$		20	
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			$-55^\circ\text{C}+150^\circ\text{C}$	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEsat}	Collector-emitter saturation voltage	$I_C=1A; I_B=0.2A$			0.7	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=1A; I_B=0.2A$			1.3	V
I_{CBO}	Collector cut-off current	$V_{CB}=120V; I_E=0$			1	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=3V; I_C=0$			1	μA
h_{FE-1}	DC current gain	$I_C=5mA; V_{CE}=5V$	35			
h_{FE-2}	DC current gain	$I_C=0.3A; V_{CE}=5V$	60		320	
C_{ob}	Output capacitance	$I_E=0; V_{CB}=10V; f=1MHz$		19		pF
f_T	Transition frequency	$I_C=0.2A; V_{CE}=5V$		155		MHz

◆ h_{FE-2} Classifications

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

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PACKAGE OUTLINE

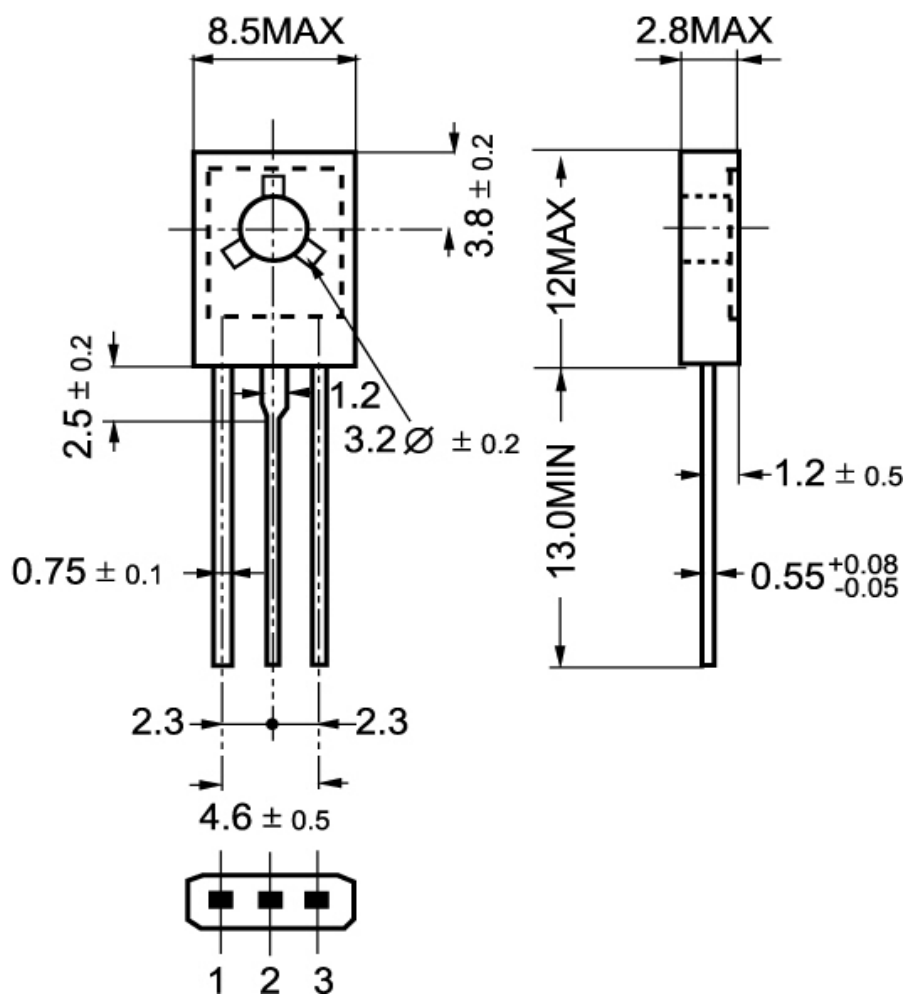


Fig.2 Outline dimensions

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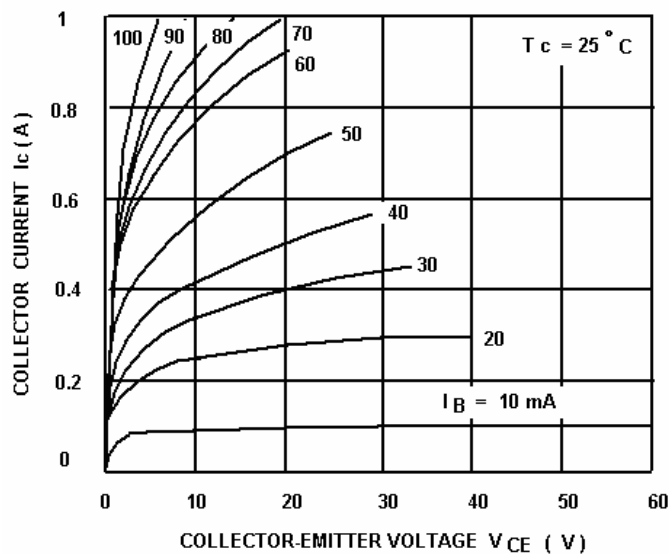


Fig.3 Static Characteristic

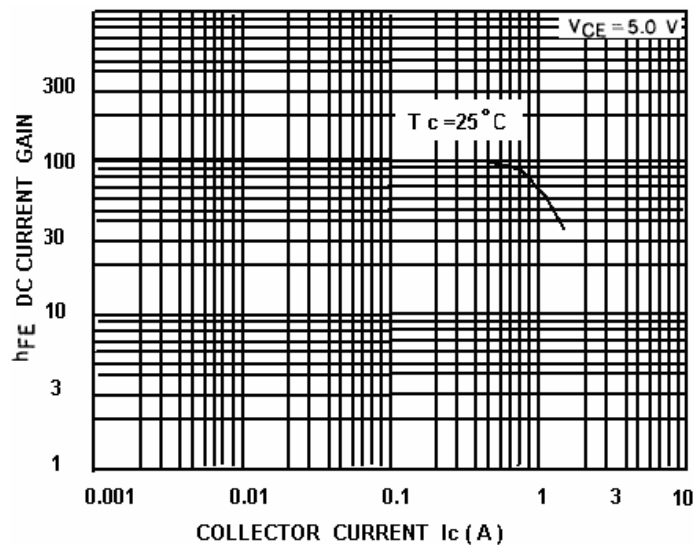


Fig.4 DC current Gain

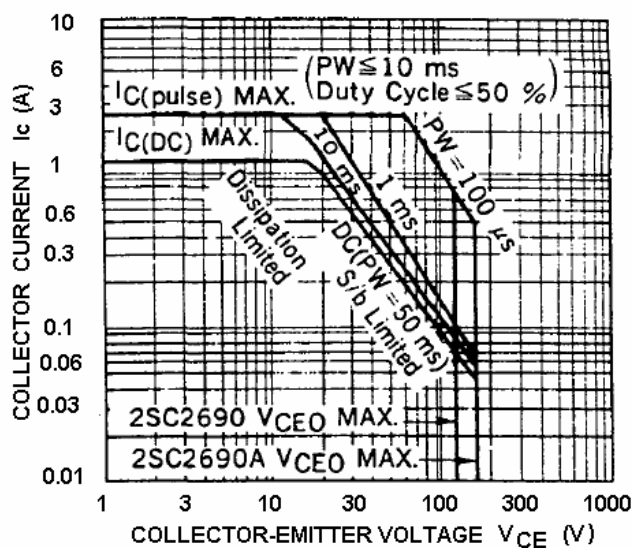


Fig.5 Safe Operating Area