

Silicon PNP Power Transistors

2SB686

DESCRIPTION

- With TO-3P(I) package
- Complement to type 2SD716

APPLICATIONS

- Power amplifier applications
- Recommend for 30~35W high-fidelity audio frequency amplifier output stage

PINNING

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

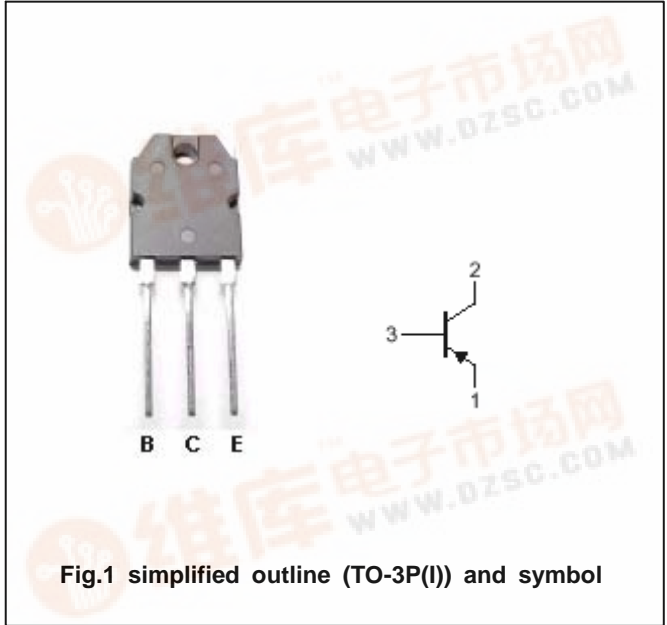


Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	-100	V
V _{CEO}	Collector-emitter voltage	Open base	-100	V
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current		-6	A
I _E	Emitter current		6	A
P _T	Total power dissipation	T _C =25	60	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-50mA, I _B =0	-100			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-10mA, I _C =0	-5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-4A; I _B =-0.4A			-2.0	V
V _{BE}	Base-emitter voltage	I _C =-4A; V _{CE} =-5V			-1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-100V; I _E =0			-10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-10	μA
h _{FE}	DC current gain	I _C =-1A; V _{CE} =-5V	55		160	
f _T	Transition frequency	I _C =-1A; V _{CE} =-5V		10		MHz
C _{ob}	Collector output capacitance	I _E =0; V _{CB} =-10V; f=1MHz		270		pF

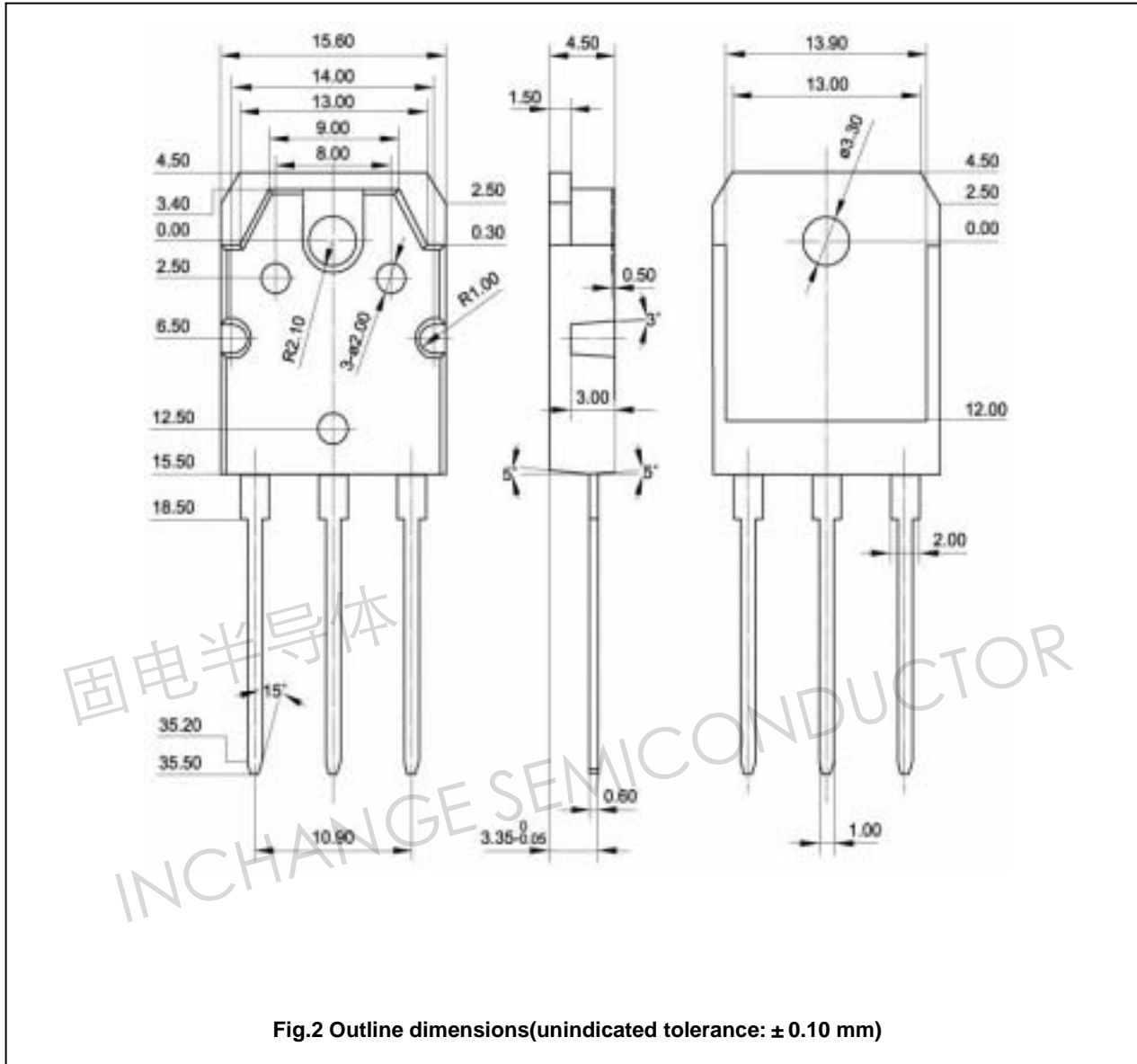
◆ h_{FE} Classifications

R	O
55-110	80-160

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PACKAGE OUTLINE



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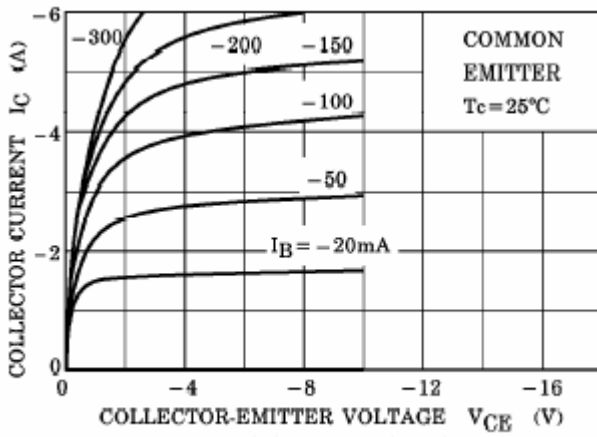


Fig.3 Static Characteristic

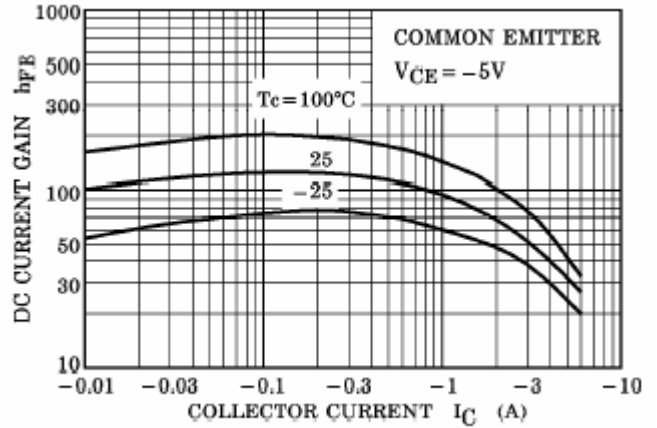


Fig.4 DC current Gain

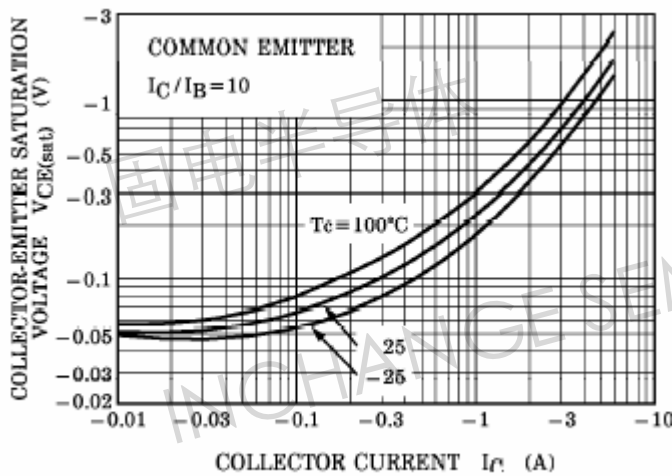


Fig.5 Collector-Emitter Saturation Voltage

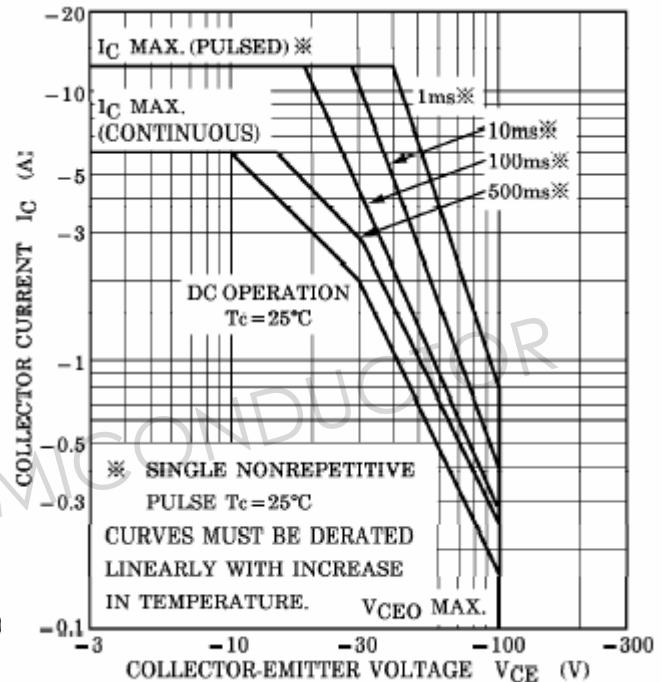


Fig.6 Safe Operating Area