

Silicon PNP Power Transistors

2SB688

DESCRIPTION

- With TO-3P(I) package
- Complement to type 2SD718

APPLICATIONS

- Power amplifier applications
- Recommend for 45~50W audio frequency amplifier output stage

PINNING

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

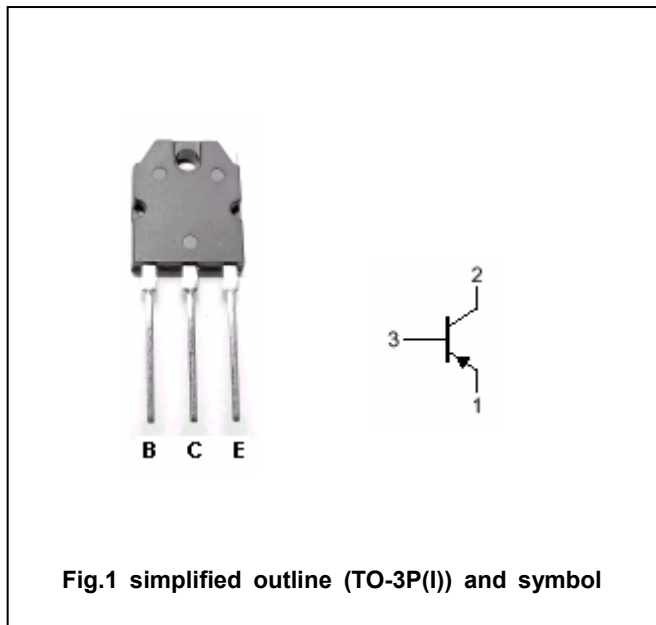


Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	-120	V
V _{CEO}	Collector-emitter voltage	Open base	-120	V
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current		-8	A
I _B	Base current		-0.8	A
P _T	Total power dissipation	T _C =25°C	80	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

Silicon PNP Power Transistors

2SB688

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-50mA, I _B =0	-120			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-5A; I _B =-0.5A			-2.5	V
V _{BE}	Base-emitter voltage	I _C =-5A; V _{CE} =-5V			-1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-120V; 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}	Output capacitance	I _E =0; V _{CB} =-10V; f=1MHz		280		pF

◆ h_{FE} Classifications

R	O
55-110	80-160

Silicon PNP Power Transistors

2SB688

PACKAGE OUTLINE

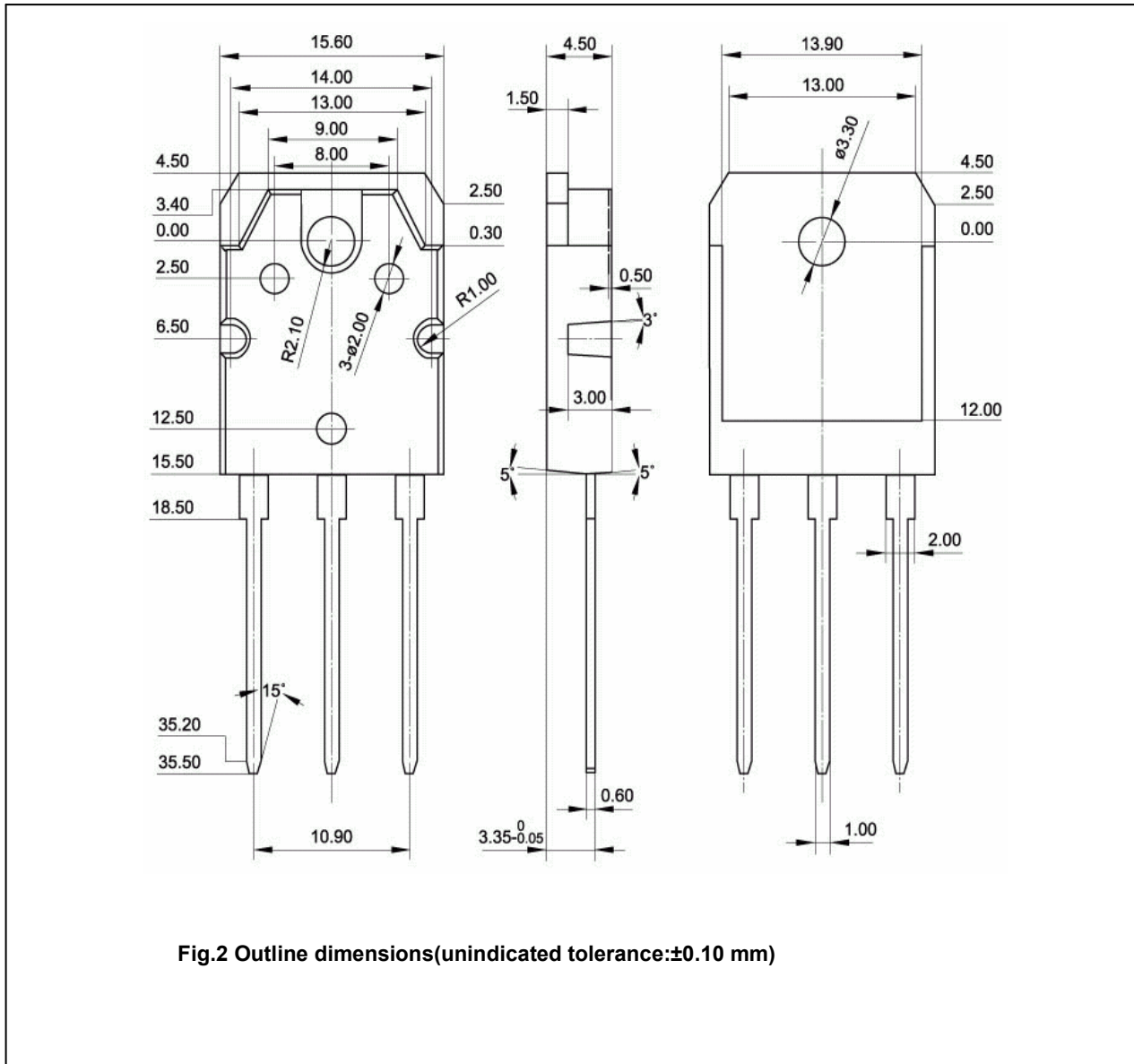


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)

Silicon PNP Power Transistors

2SB688

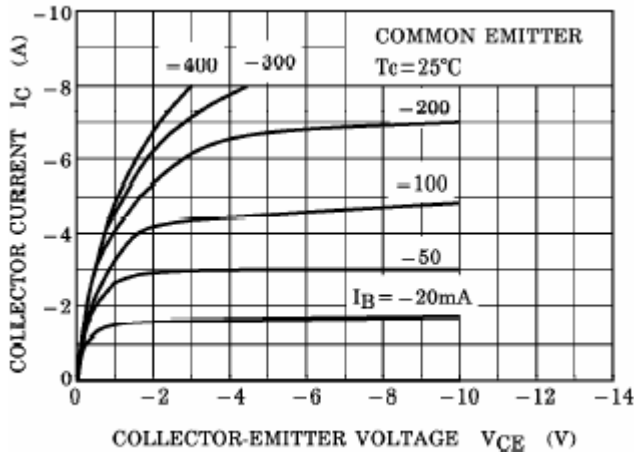


Fig.3 Static Characteristic

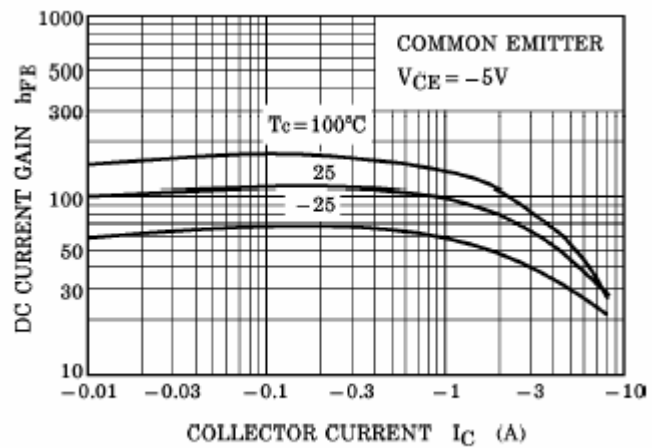


Fig.4 DC current Gain

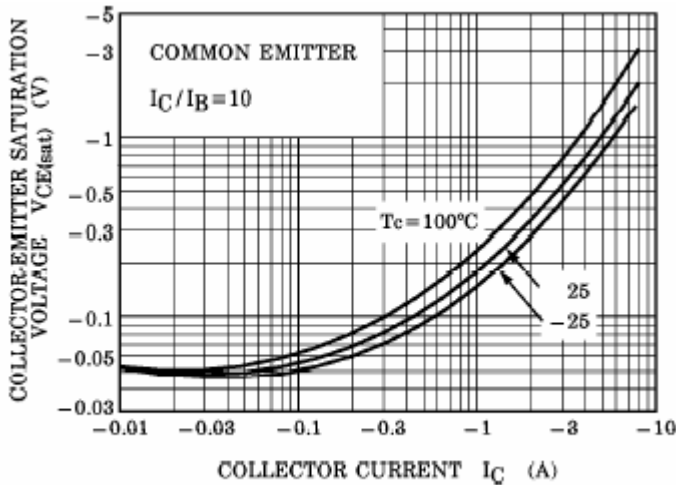


Fig.5 Collector-Emitter Saturation Voltage

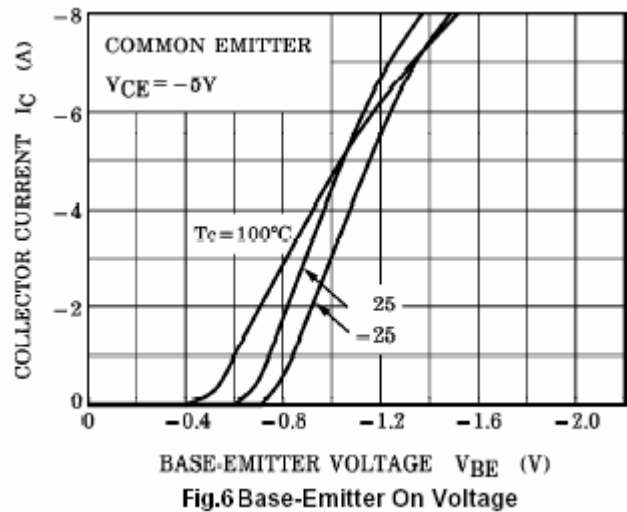


Fig.6 Base-Emitter On Voltage

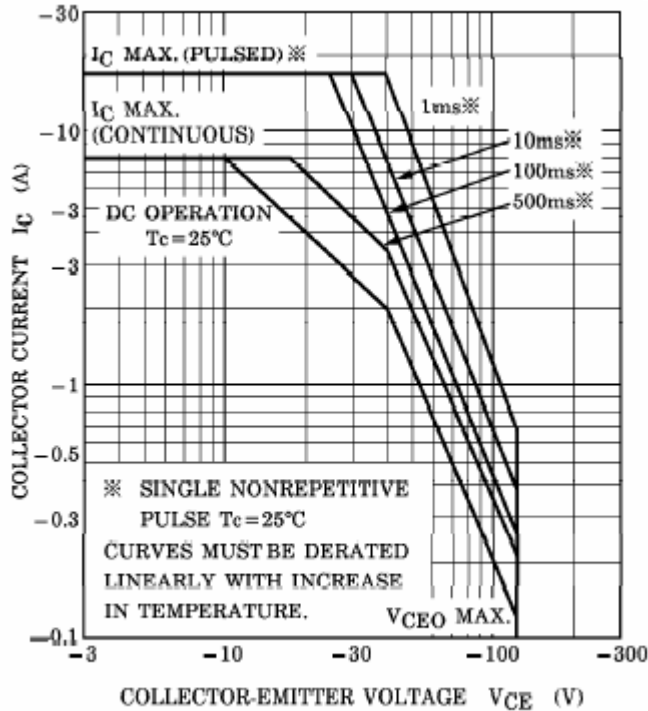


Fig.7 Safe Operating Area