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

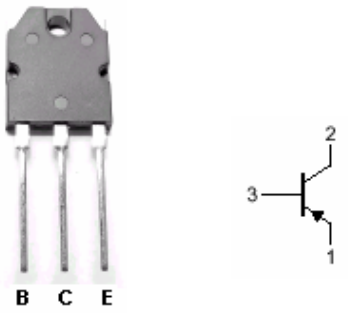

Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings(Ta=25)

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	80	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

Tj=25 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

PACKAGE OUTLINE

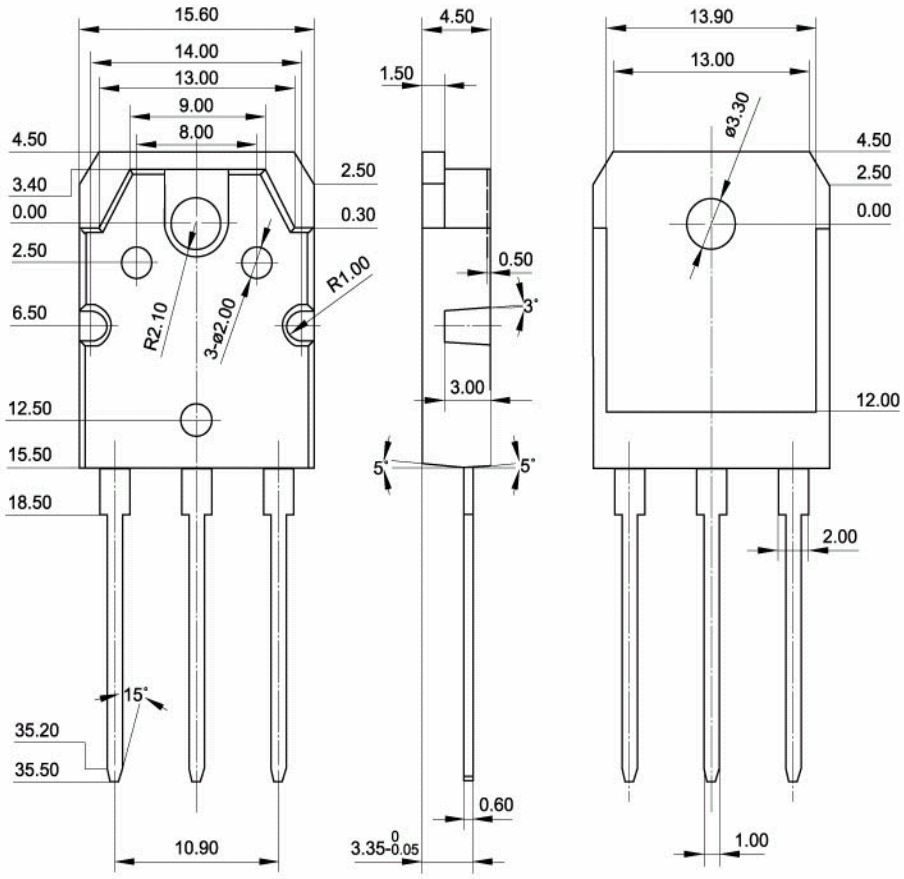

Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)

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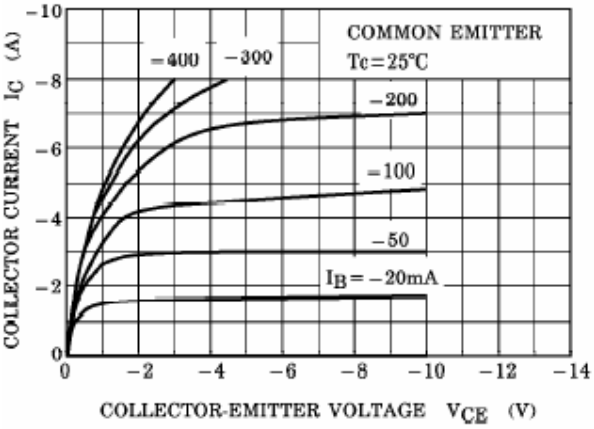

Fig.3 Static Characteristic

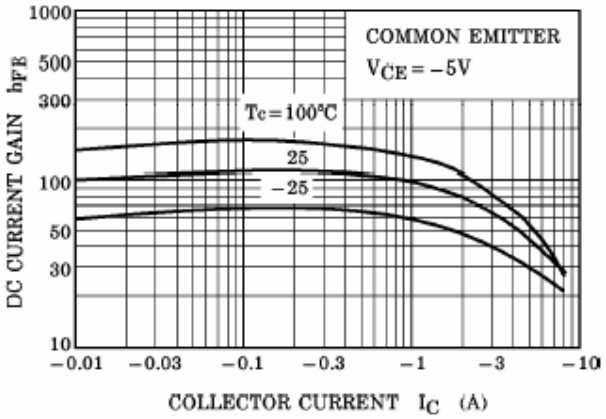

Fig.4 DC current Gain

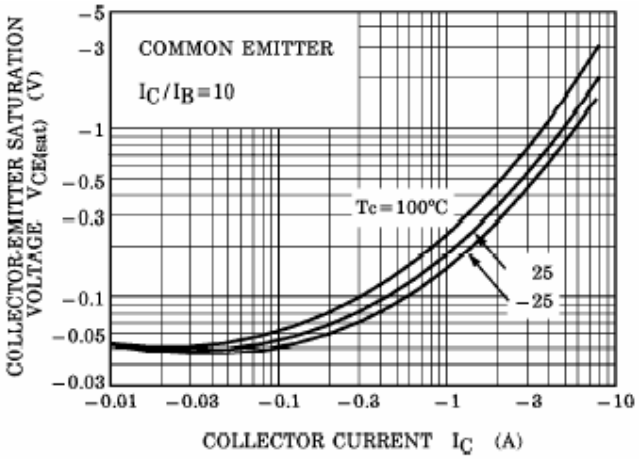

Fig.5 Collector-Emitter Saturation Voltage

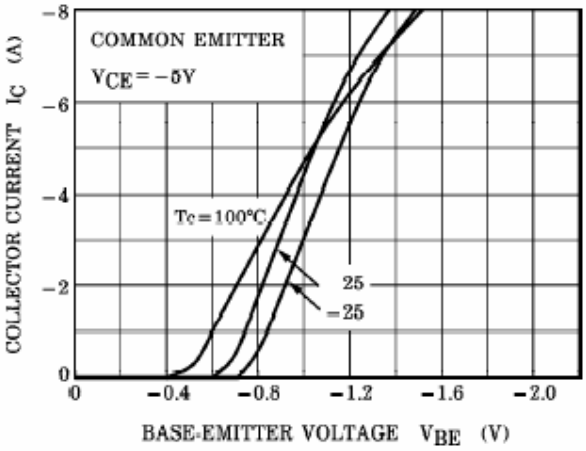

Fig.6 Base-Emitter On Voltage

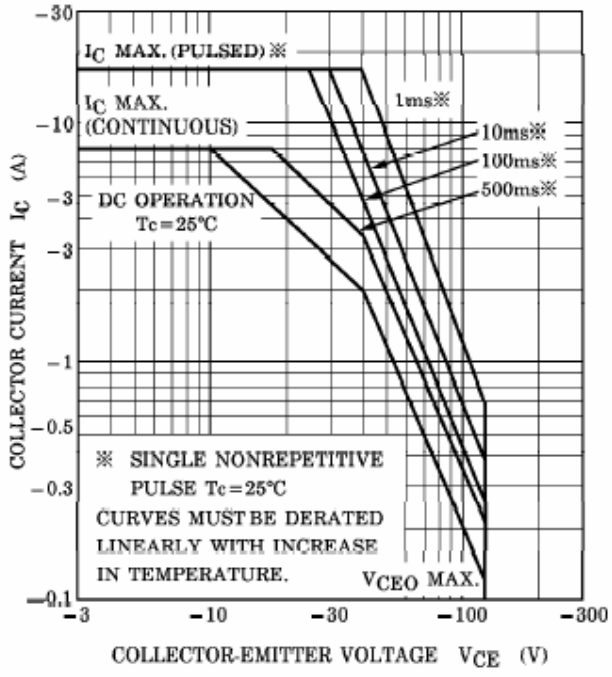

Fig.7 Safe Operating Area