

Silicon PNP Power Transistors

2SB863

DESCRIPTION

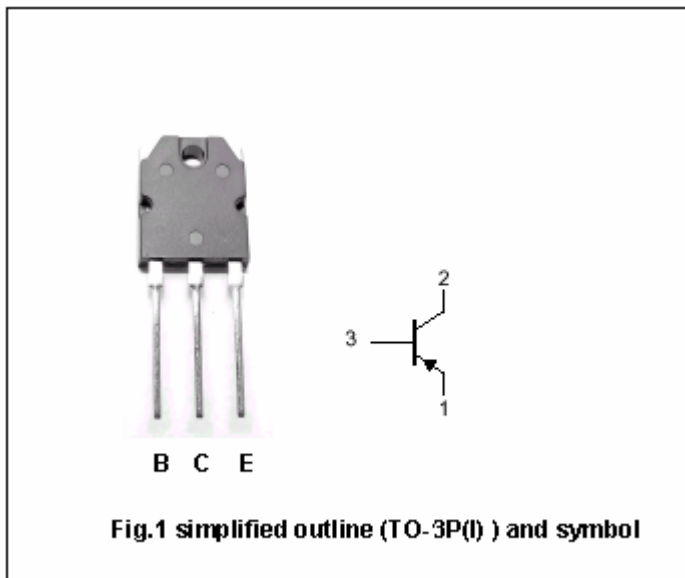
- With TO-3P(I) package
- Complement to type 2SD1148

APPLICATIONS

- Power amplifier applications
- Recommend for 70W high fidelity audio frequency amplifier output stage

PINNING

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



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	-140	V
V _{CEO}	Collector-emitter voltage	Open base	-140	V
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current		-10	A
I _B	Base current		-1	A
P _C	Collector power dissipation	T _C =25°C	100	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

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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	-140			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-5.0A; I _B =-0.5A		-0.60	-2.0	V
V _{BE}	Base-emitter on voltage	I _C =-5A; V _{CE} =-5V		-0.96	-1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-140V; I _E =0			-5.0	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-5.0	μA
h _{FE-1}	DC current gain	I _C =-1A; V _{CE} =-5V	55		160	
h _{FE-2}	DC current gain	I _C =-5A; V _{CE} =-5V	25			
f _T	Transition frequency	I _C =-1A; V _{CE} =-10V		15		MHz
C _{OB}	Collector output capacitance	I _C =0; f=1MHz; V _{CB} =-10V		400		pF

◆ h_{FE-1} Classifications

R	O
55-110	80-160

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PACKAGE OUTLINE

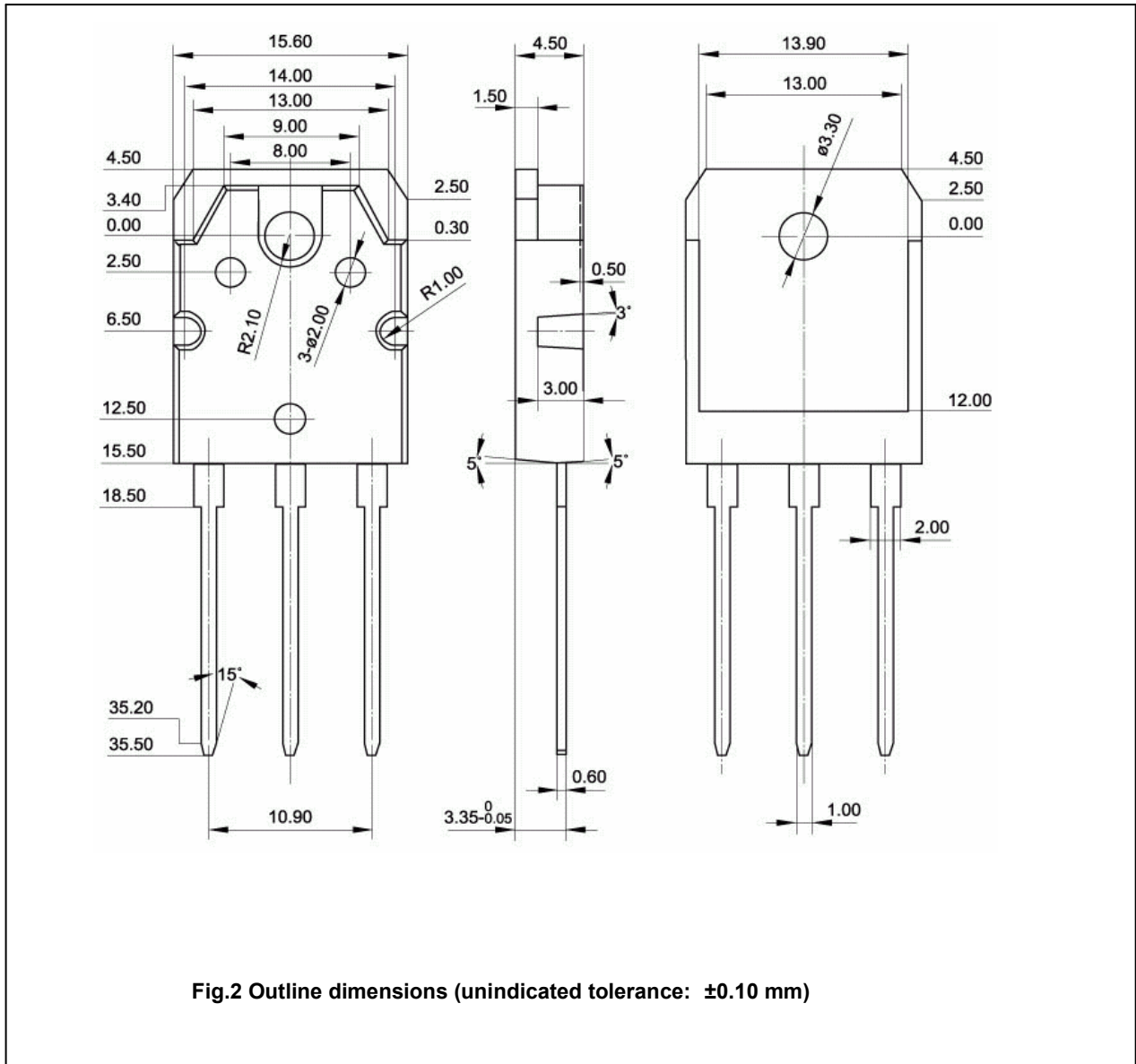


Fig.2 Outline dimensions (unindicated tolerance: ± 0.10 mm)

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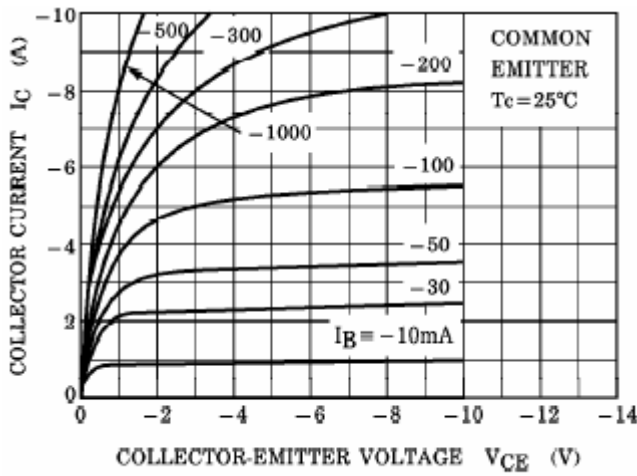


Fig.3 Static Characteristic

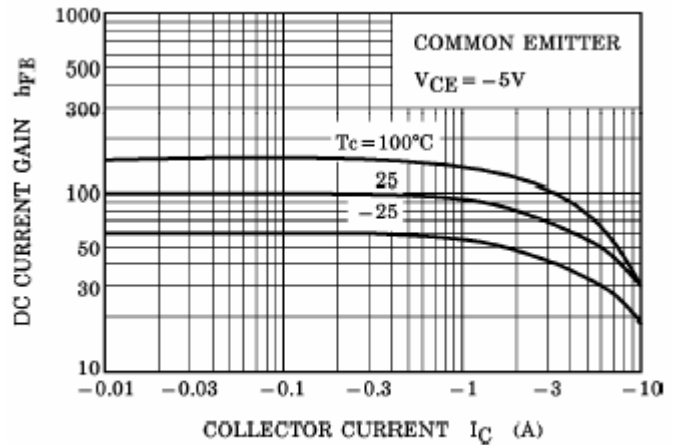


Fig.4 DC current Gain

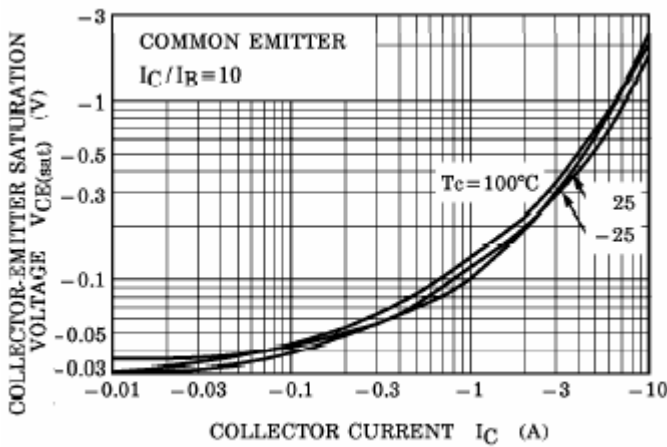


Fig.5 Collector-Emitter Saturation Voltage

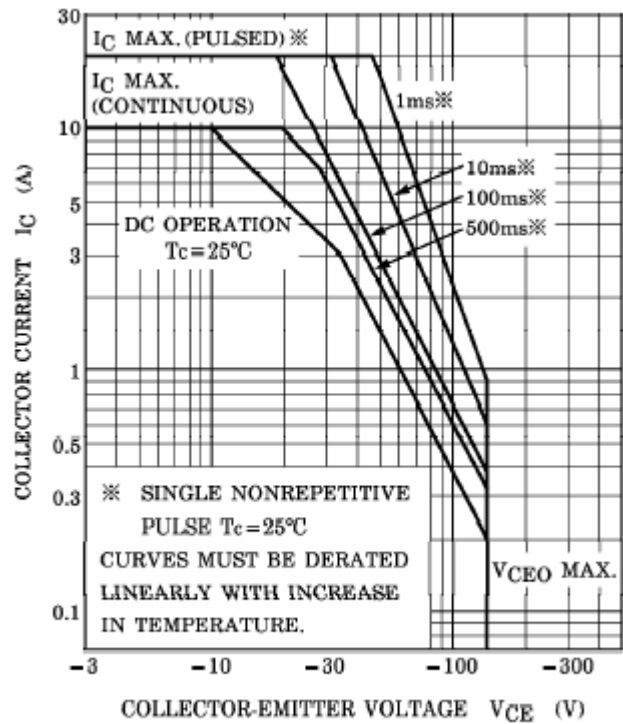


Fig.5 Safe Operating Area

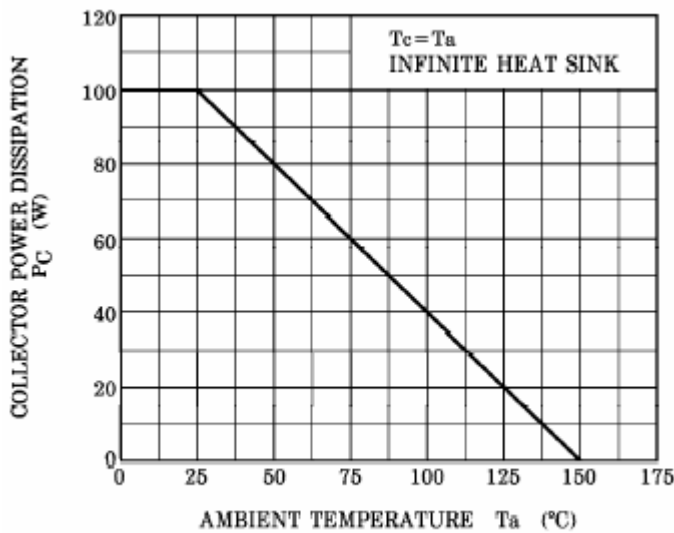


Fig.6 Pc-Ta Derating