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

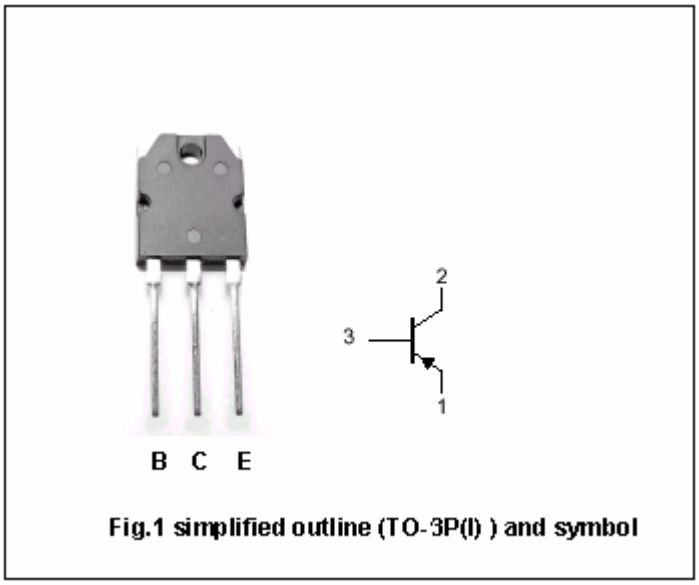

Fig.1 simplified outline (TO-3P(I)) and symbol

PINNING

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

Absolute maximum ratings(Ta=25□)

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□	100	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	-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

PACKAGE OUTLINE

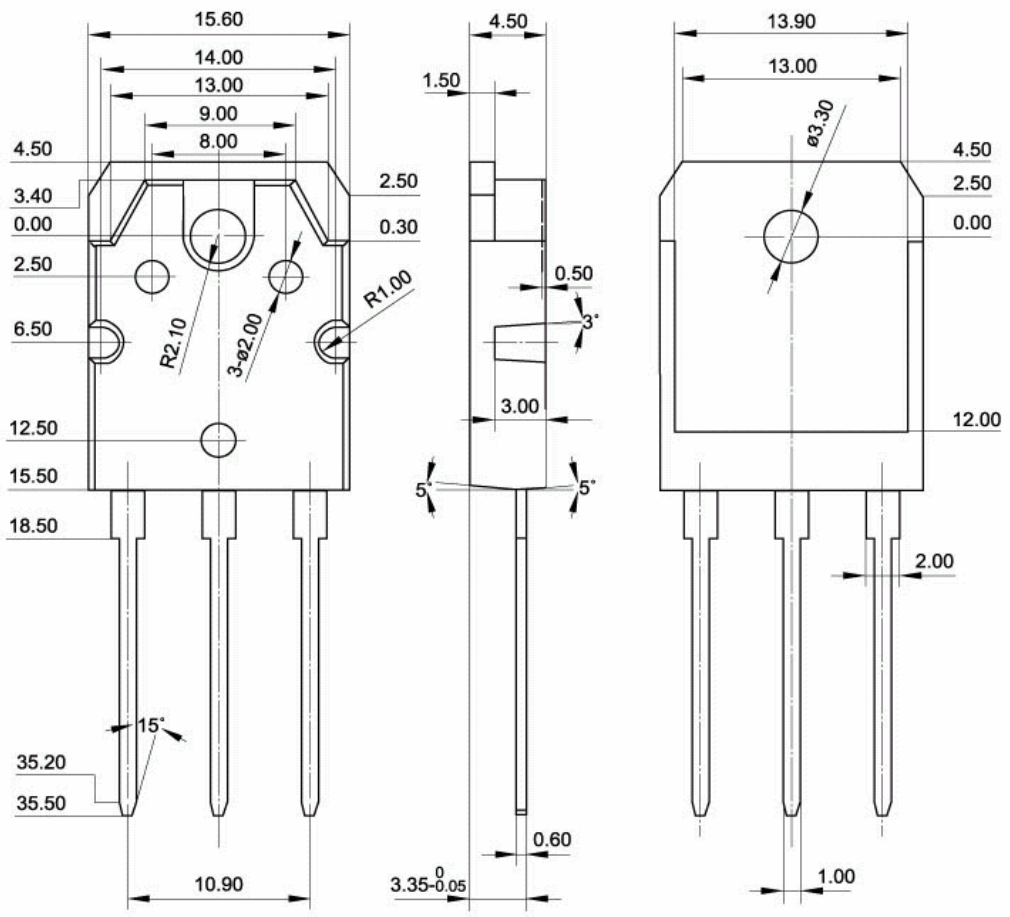

Fig.2 Outline dimensions (unindicated tolerance: ±0.10 mm)

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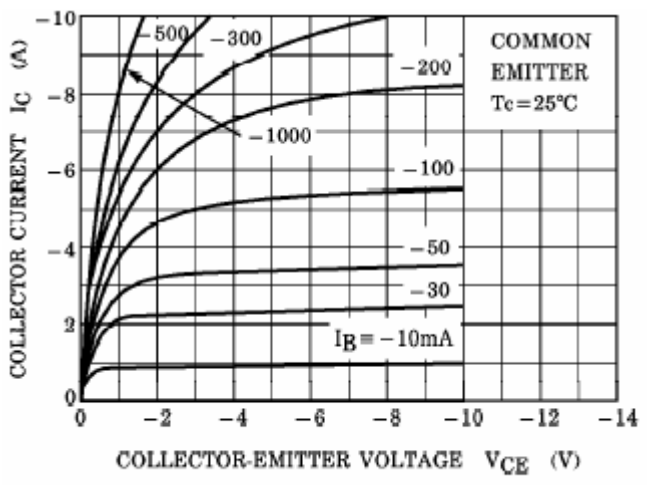

Fig.3 Static Characteristic

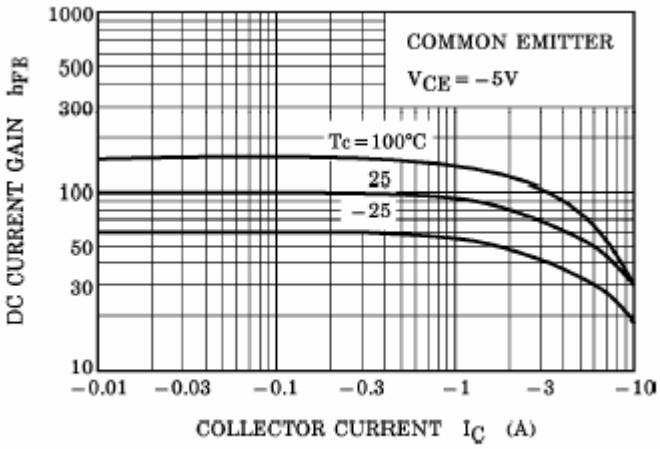

Fig.4 DC current Gain

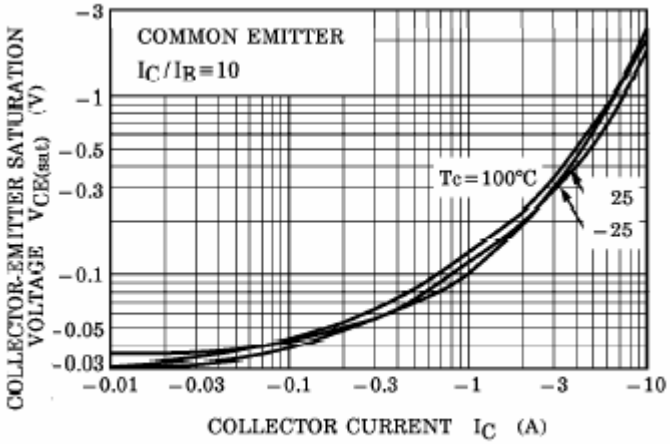

Fig.5 Collector-Emitter Saturation Voltage

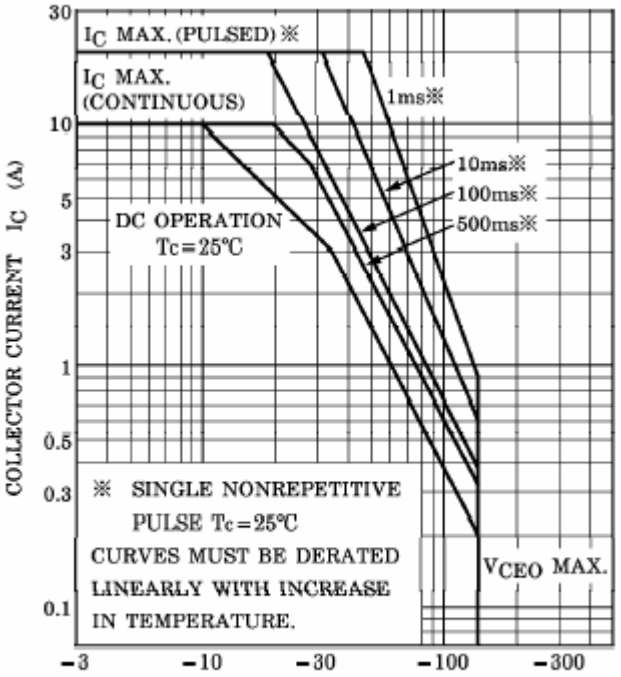

Fig.5 Safe Operating Area

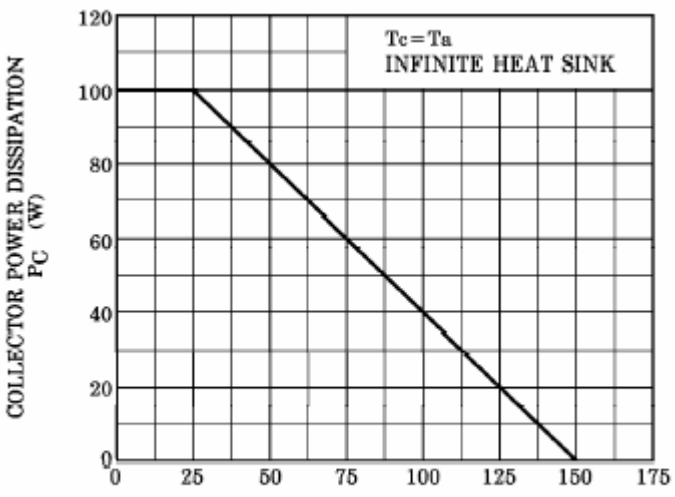

Fig.6 Pc−Ta Derating