

Silicon PNP Power Transistors

2SA1988

DESCRIPTION

- With TO-3PN package
- High collector-emitter voltage

APPLICATIONS

- For audio frequency power amplifier and industrial use

PINNING

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

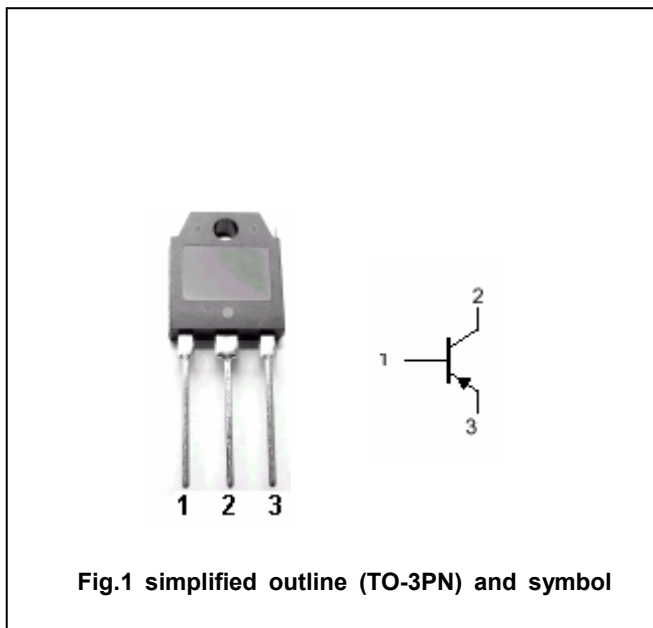


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-200	V
V_{CEO}	Collector-emitter voltage	Open base	-200	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-7	A
I_{CM}	Collector current-peak		-10	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

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	I _C =-5A; I _B =-0.5A		-0.6	-2.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-5A; I _B =-0.5A		-1.3	-2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-200V; I _E =0			-50	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-3V; I _C =0			-50	μA
h _{FE-1}	DC current gain	I _C =-1A; V _{CE} =-5V	70		200	
h _{FE-2}	DC current gain	I _C =-3.5A; V _{CE} =-5V	20			
C _{OB}	Output capacitance	I _E =0; V _{CB} =-10V, f=1MHz		270		pF
f _T	Transition frequency	I _C =-1A; V _{CE} =-5V		40		MHz

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PACKAGE OUTLINE

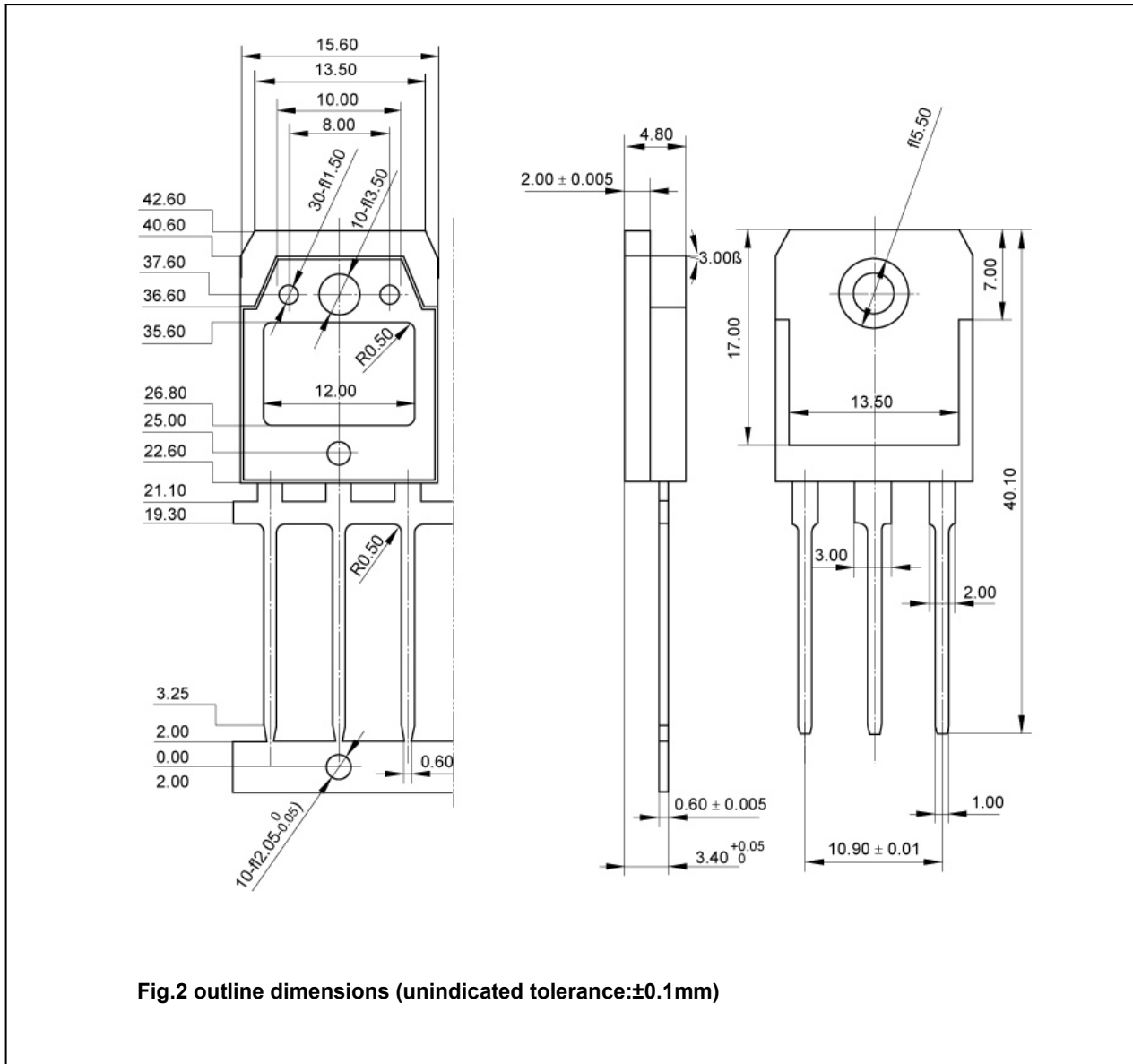


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)

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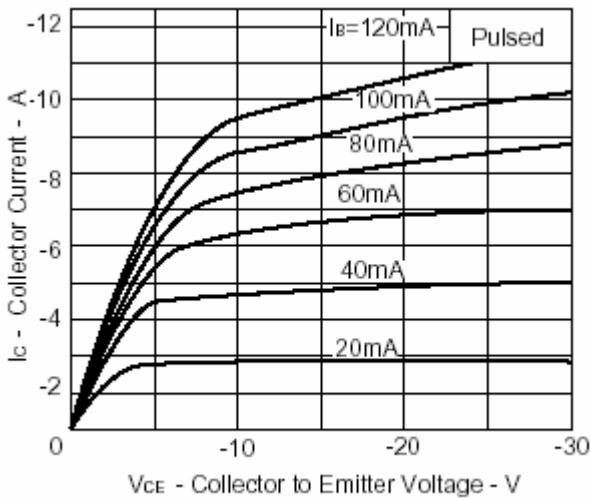


Fig.3 Static Characteristic

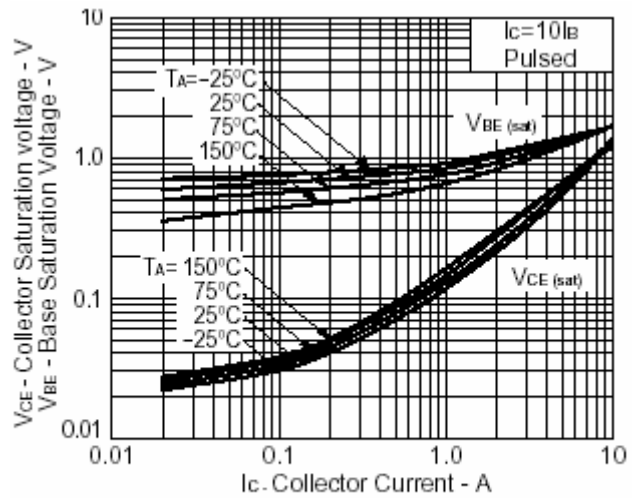


Fig.4 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

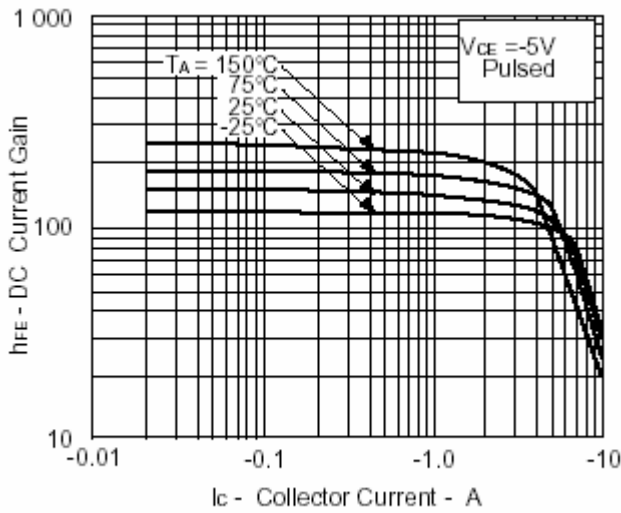


Fig.5 DC current Gain

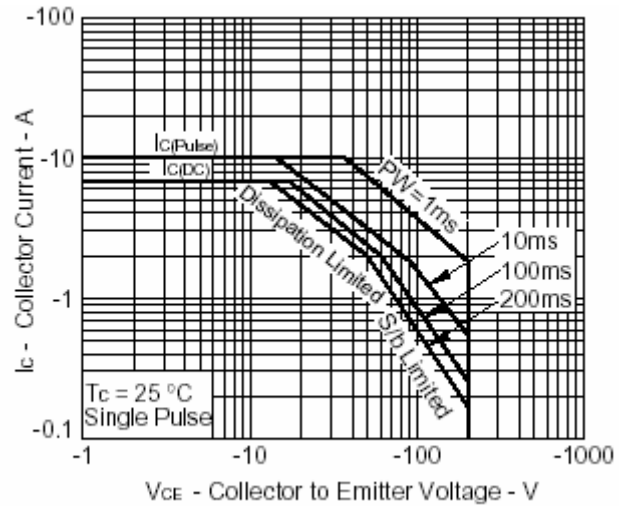


Fig.6 Safe Operating Area