

Silicon PNP Power Transistors

2SA1302

DESCRIPTION

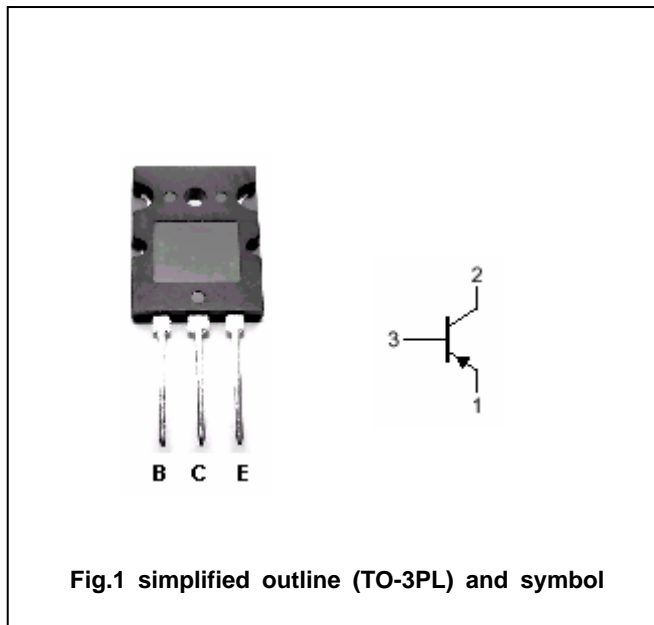
- With TO-3PL package
- Complement to type 2SC3281

APPLICATIONS

- Power amplifier applications
- Recommended for 100W 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 )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CB0</sub>	Collector-base voltage	Open emitter	-200	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-200	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-15	A
I <sub>B</sub>	Base current		-1.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25	150	W
T <sub>j</sub>	Junction temperature		150	
T <sub>stg</sub>	Storage temperature		-55~150	

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## CHARACTERISTICS

 $T_j=25$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-50mA ; I_B=0$	-200			V
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C=-8A ; I_B=-0.8A$			-2.5	V
$V_{BE}$	Base-emitter voltage	$I_C=-8A ; V_{CE}=-5V$			-1.5	V
$I_{CBO}$	Collector cut-off current	$V_{CB}=-200V ; I_E=0$			-5	$\mu A$
$I_{EBO}$	Emitter cut-off current	$V_{EB}=-5V ; I_C=0$			-5	$\mu A$
$h_{FE-1}$	DC current gain	$I_C=-1A ; V_{CE}=-5V$	55		160	
$h_{FE-2}$	DC current gain	$I_C=-8A ; V_{CE}=-5V$	35			
$f_T$	Transition frequency	$I_C=-1A ; V_{CE}=-5V$		25		MHz
$C_{OB}$	Collector output capacitance	$I_E=0 ; f=1MHz ; V_{CB}=-10V$		470		pF

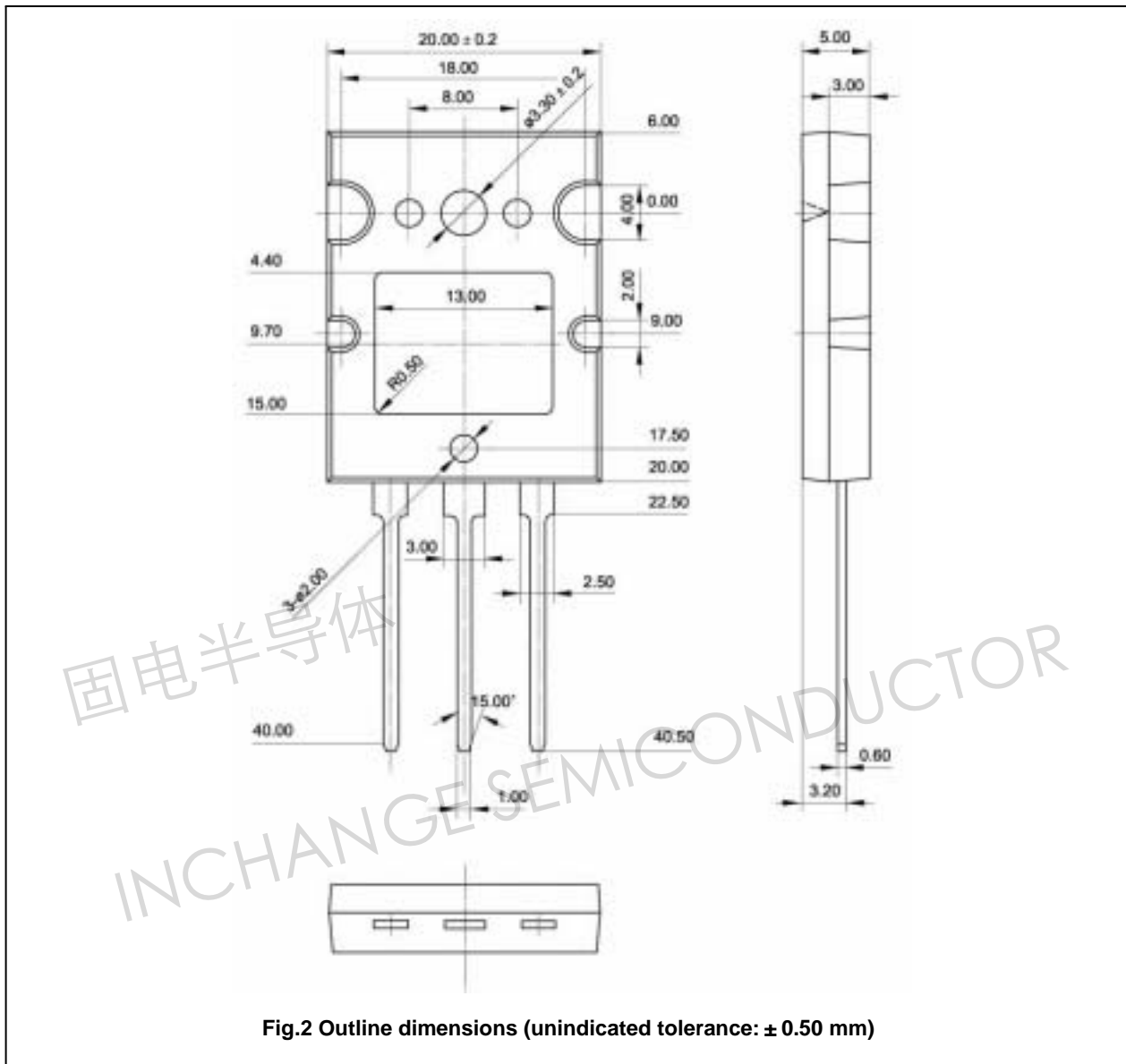
◆  $h_{FE-1}$  classifications

R	O
55-110	80-160

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PACKAGE OUTLINE



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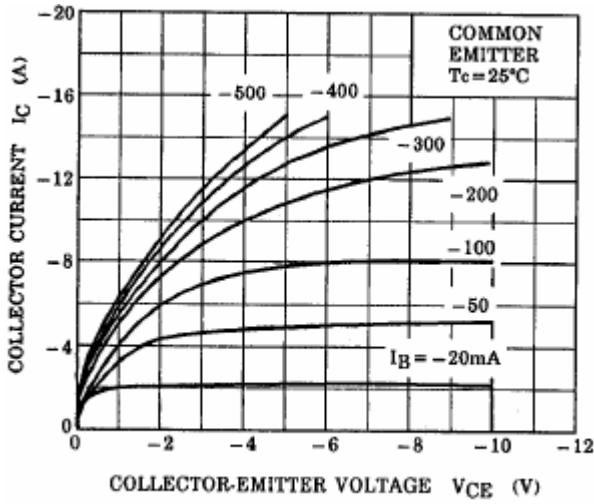


Fig.3 Static Characteristic

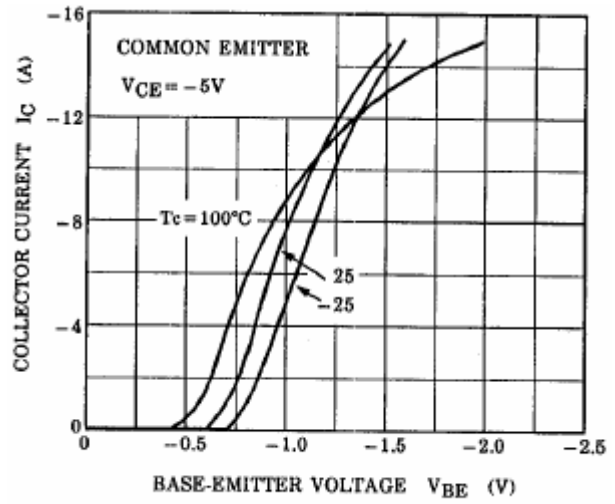


Fig.3 Base-Emitter On Voltage

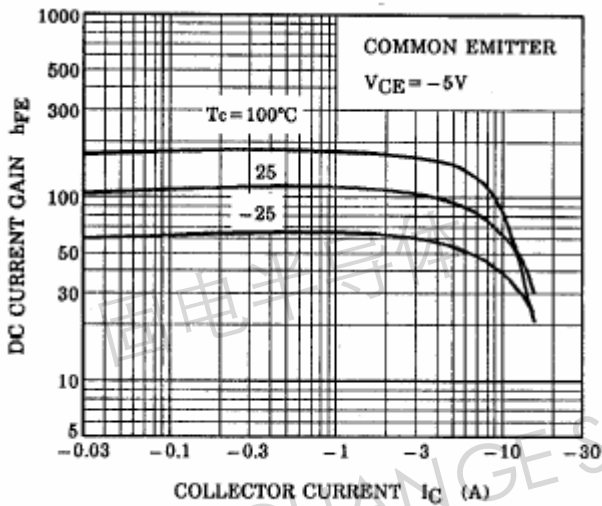


Fig.5 DC current Gain

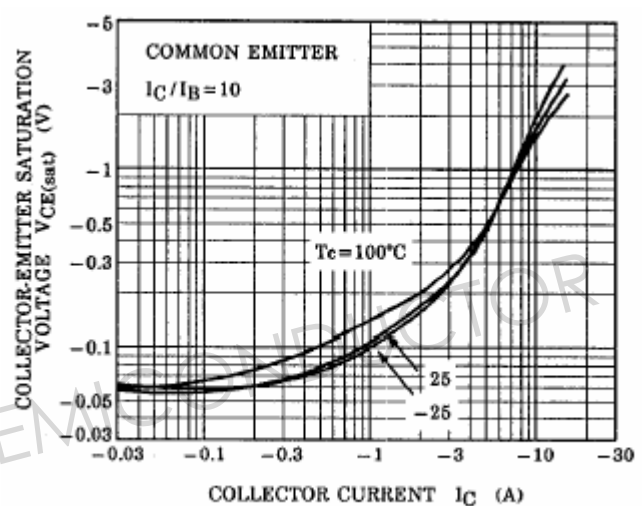


Fig.6 Collector-Emitter Saturation Voltage

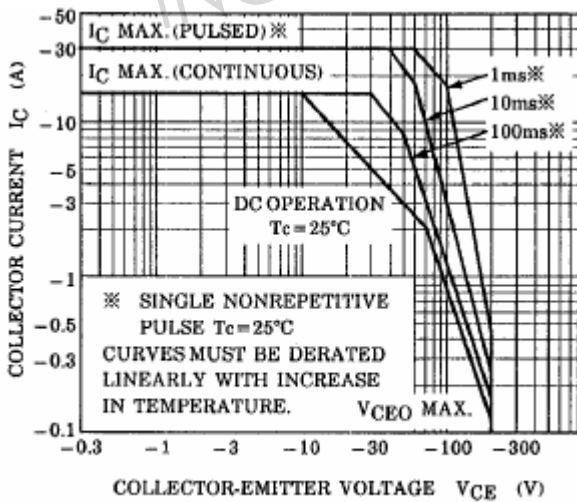


Fig.7 Safe Operating Area