

Silicon NPN Power Transistors

2SC5199

DESCRIPTION

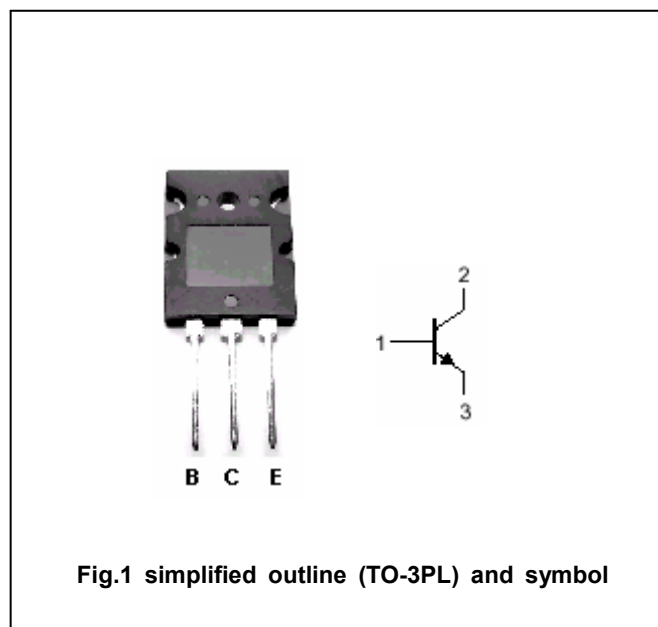
- With TO-3PL package
- Complement to type 2SA1942

APPLICATIONS

- Power amplifier applications
- Recommended for 80W high fidelity audio frequency amplifier output stage

PINNING

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

**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	160	V
V _{CEO}	Collector-emitter voltage	Open base	160	V
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		12	A
I _B	Base current		1.2	A
P _C	Collector power dissipation	T _C =25°C	120	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

Silicon NPN Power Transistors

2SC5199

CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=50mA ; I_B=0$	160			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=8A ; I_B=0.8A$			2.5	V
V_{BE}	Base-emitter on voltage	$I_C=6A ; V_{CE}=5V$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=160V ; I_E=0$			5	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V ; I_C=0$			5	μA
h_{FE-1}	DC current gain	$I_C=1A ; V_{CE}=5V$	55		160	
h_{FE-2}	DC current gain	$I_C=6A ; V_{CE}=5V$	35			
f_T	Transition frequency	$I_C=1A ; V_{CE}=5V$		30		MHz
C_{OB}	Collector output capacitance	$f=1MHz ; V_{CB}=10V$		170		pF

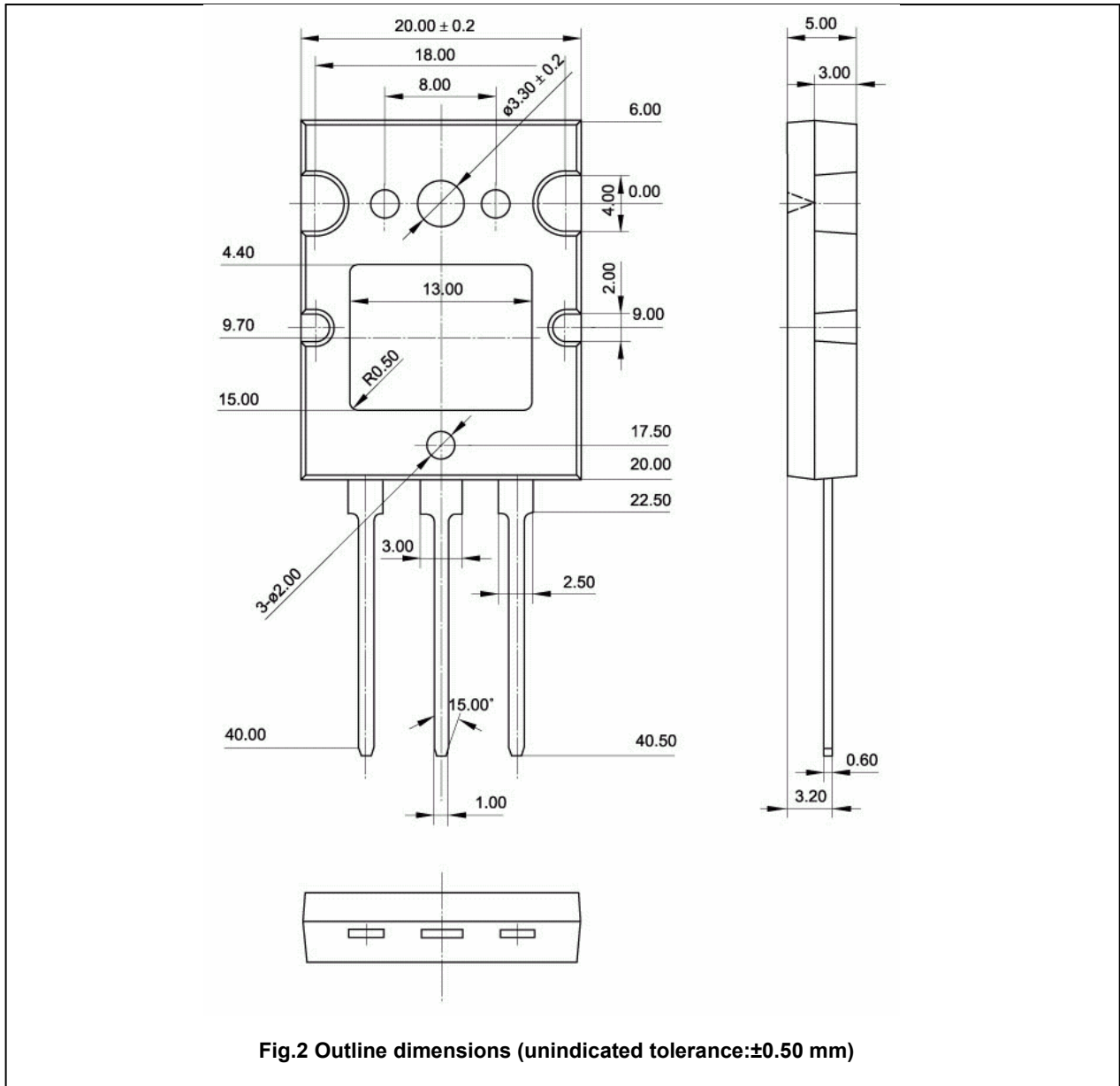
◆ h_{FE-1} classifications

R	O
55-110	80-160

Silicon NPN Power Transistors

2SC5199

PACKAGE OUTLINE



Silicon NPN Power Transistors

2SC5199

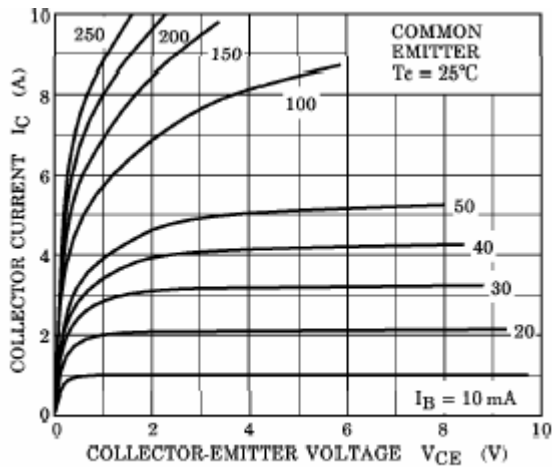


Fig.3 Static Characteristic

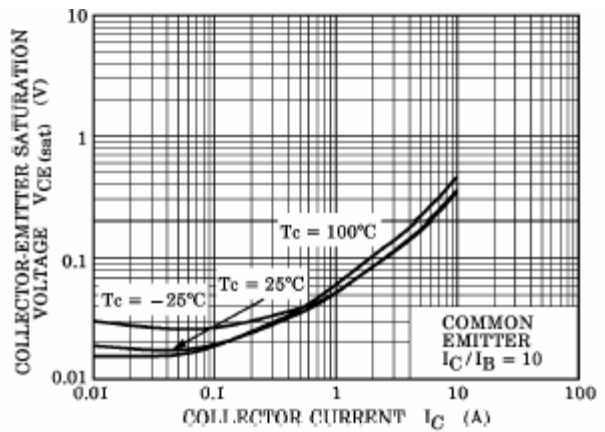


Fig.4 Collector-Emitter Saturation Voltage

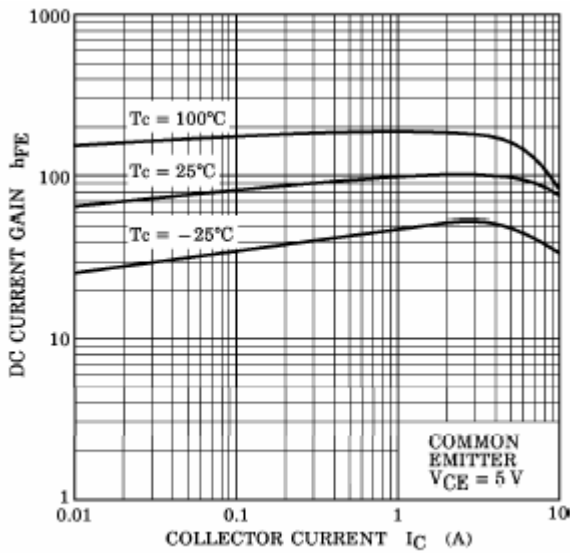


Fig.5 DC current Gain

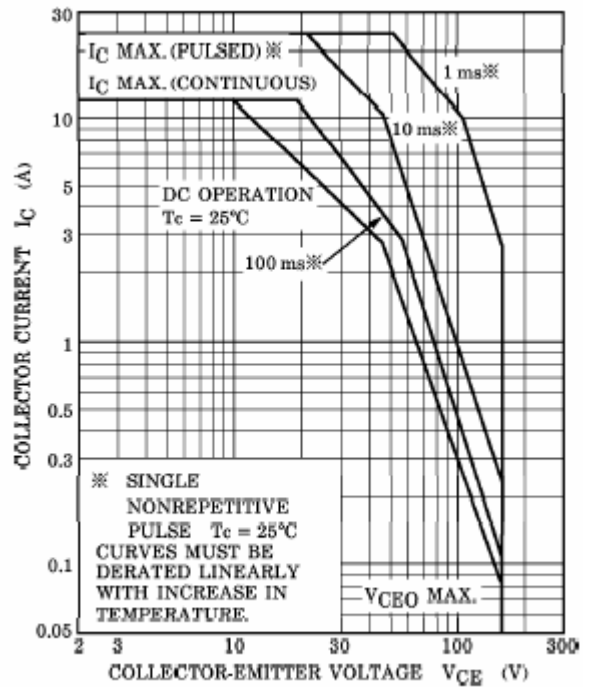


Fig.6 Safe Operating Area