

Silicon NPN Power Transistors

2SC3519 2SC3519A

DESCRIPTION

- With TO-3PN package
- Complement to type 2SA1386/A

APPLICATIONS

- Audio and general purpose

PINNING

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

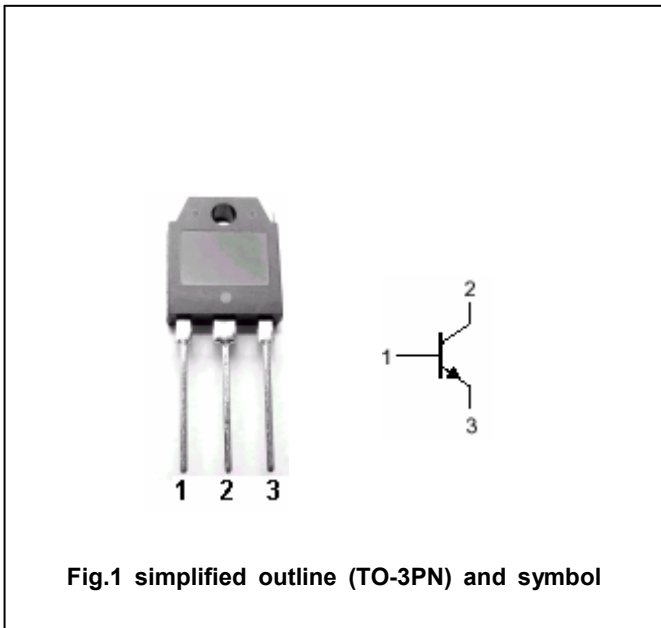


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SC3519	160	V
		2SC3519A	180	
V _{CEO}	Collector-emitter voltage	2SC3519	160	V
		2SC3519A	180	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		15	A
I _B	Base current		4	A
P _C	Collector power dissipation	T _C =25□	130	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 _{(BR)CEO}	Collector-emitter breakdown voltage	2SA1386	I _C =25mA ; I _B =0	160			V	
		2SA1386A		180				
V _{CEsat}	Collector-emitter saturation voltage		I _C =5A ; I _B =0.5A			2.0	V	
I _{CBO}	Collector cut-off current	2SA1386	V _{CB} =160V ; I _E =0			100	μA	
		2SA1386A	V _{CB} =180V ; I _E =0					
I _{EBO}	Emitter cut-off current		V _{EB} =5V ; I _C =0			100	μA	
h _{FE}	DC current gain		I _C =5A ; V _{CE} =4V	50		180		
C _{ob}	Output capacitance		I _E =0 ; V _{CB} =10V ; f=1MHz		250		pF	
f _T	Transition frequency		I _C =2A ; V _{CE} =12V		50		MHz	
Switching times								
t _{on}		Rise time	I _C =10A ; R _L =4Ω I _{B1} =- I _{B2} =1A V _{CC} =40V		0.20		μs	
t _s		Storage time				1.30		μs
t _f		Fall time				0.45		μs

◆ h_{FE} Classifications

O	P	Y
50-100	70-140	90-180

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PACKAGE OUTLINE

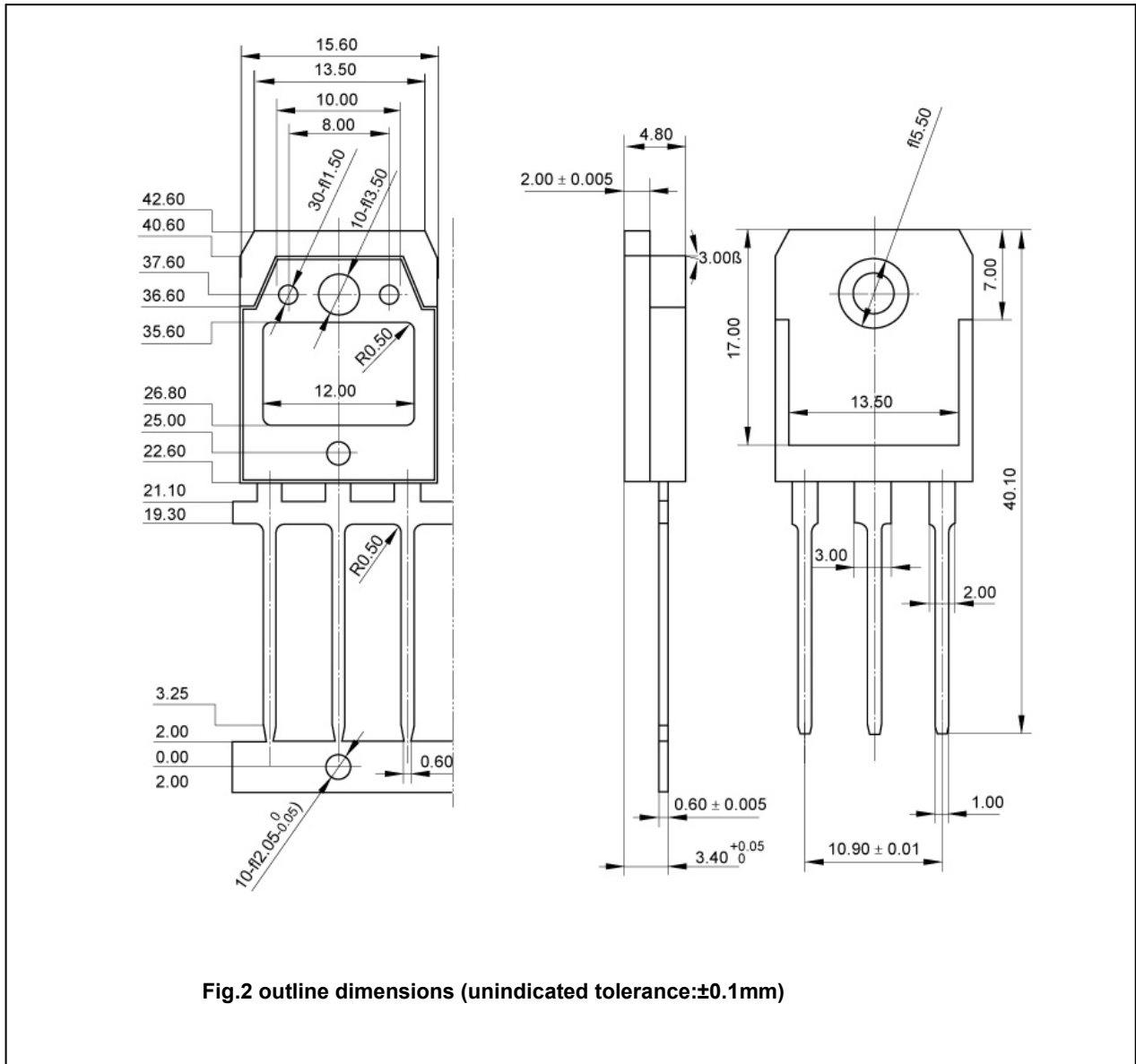


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)

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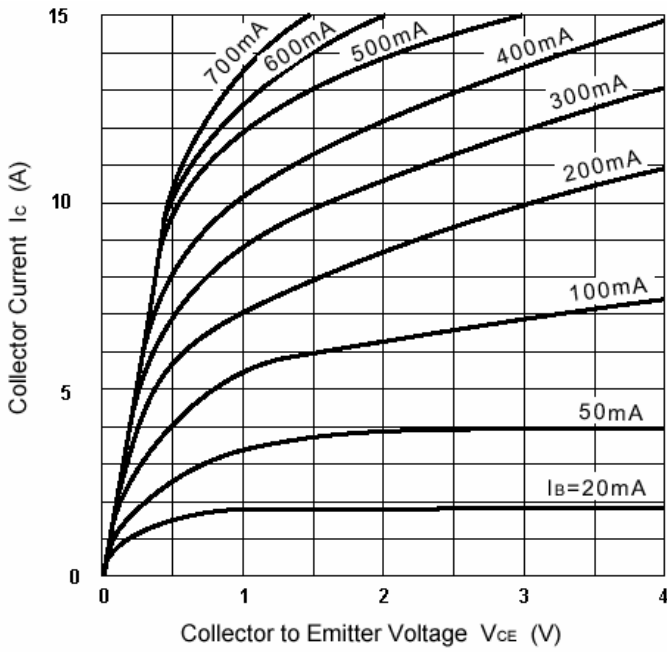


Fig.3 Static Characteristic

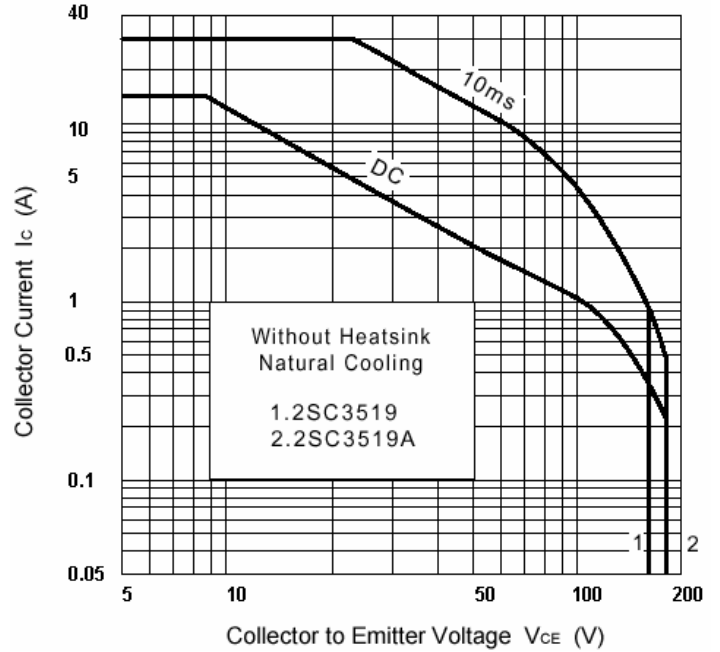


Fig.4 Safe Operating Area

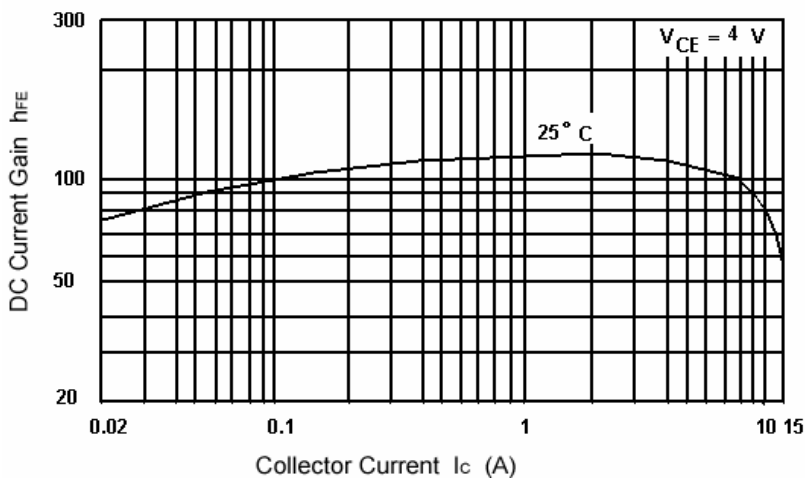


Fig.5 DC current Gain