

Silicon NPN Power Transistors

2SC4883 2SC4883A

DESCRIPTION

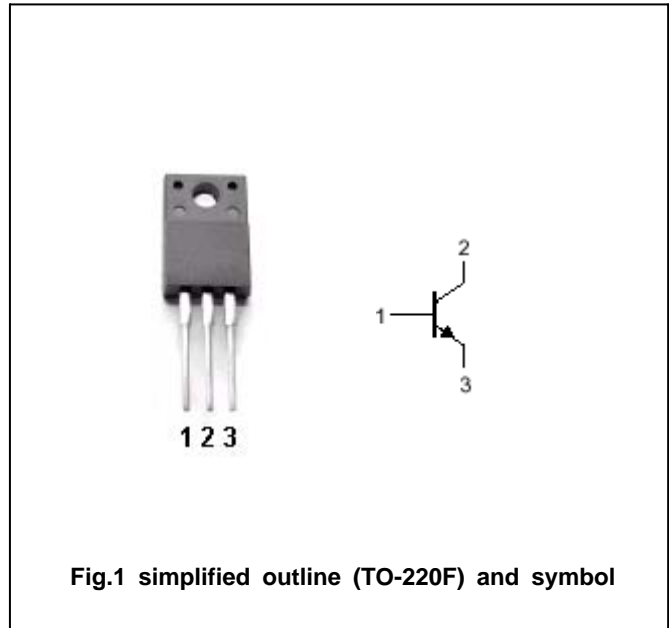
- With TO-220F package
- Complement to type 2SA1859/1859A

APPLICATIONS

- For audio output driver and TV velocity-modulation applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC4883	Open emitter	150	V
		2SC4883A		180	
V_{CEO}	Collector-emitter voltage	2SC4883	Open base	150	V
		2SC4883A		180	
V_{EBO}	Emitter-base voltage		Open collector	6	V
I_C	Collector current			2	A
I_B	Base current			1	A
P_C	Collector dissipation		$T_C=25^\circ\text{C}$	20	W
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			-55~150	$^\circ\text{C}$

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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	2SC4883	I _C =10mA ; I _B =0	150			V
		2SC4883A		180			
V _{CEsat}	Collector-emitter saturation voltage	I _C =0.7A; I _B =70mA			1.0	V	
I _{CBO}	Collector cut-off current	2SC4883	V _{CB} =150V; I _E =0			10	μ A
		2SC4883A	V _{CB} =180V; I _E =0			10	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			10	μ A	
h _{FE}	DC current gain	I _C =0.7A ; V _{CE} =10V	60		240		
f _T	Transition frequency	I _C =0.7A ; V _{CE} =12V		120		MHz	
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V; f=1MHz		30		pF	

Switching time

t _{on}	Turn-on time	I _C =1A ; I _{B1} =-I _{B2} =0.1A V _{CC} =20V , R _L =20 Ω		0.50		μ s
t _s	Storage time			1.50		μ s
t _f	Fall time			0.50		μ s

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PACKAGE OUTLINE

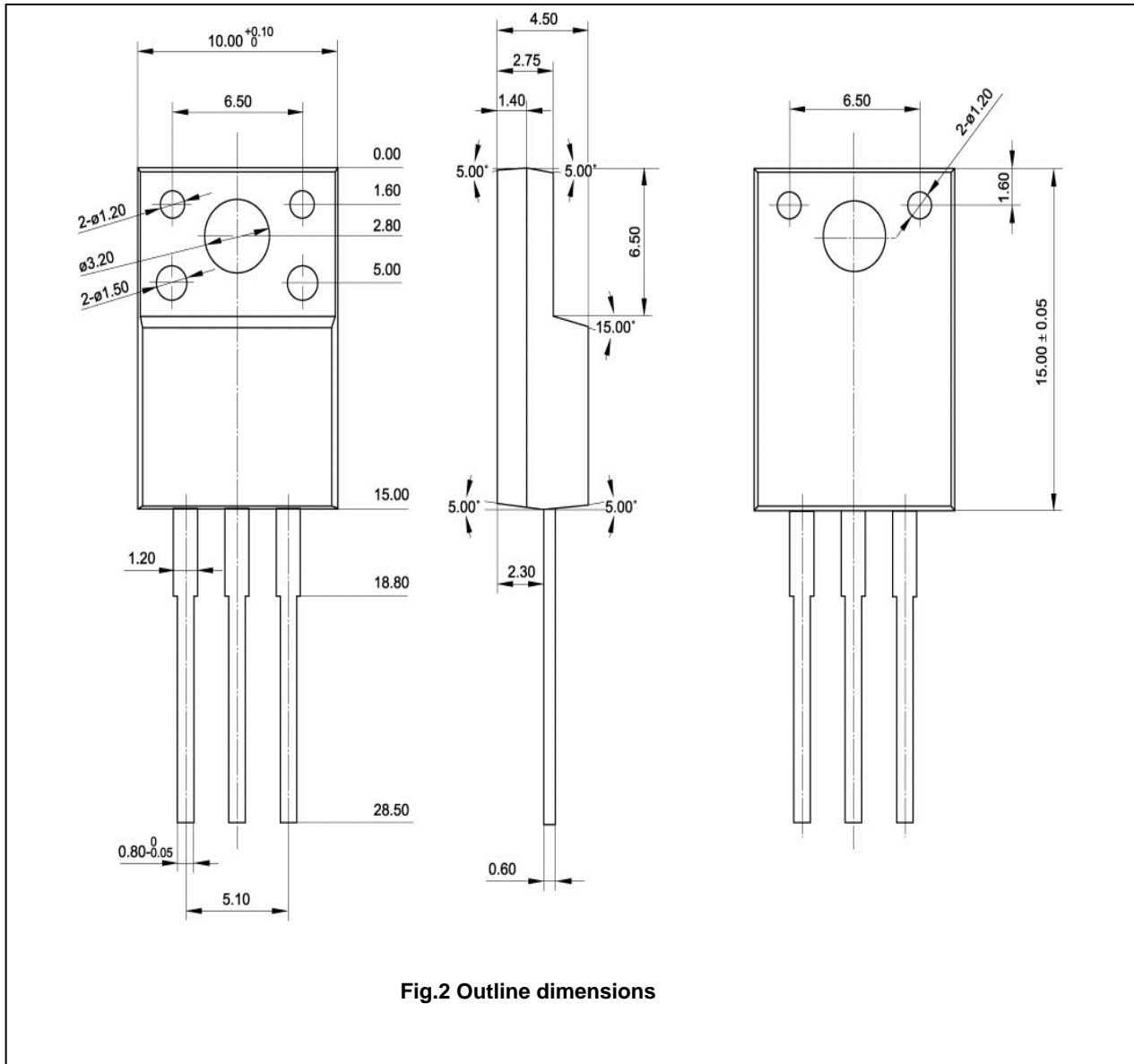


Fig.2 Outline dimensions

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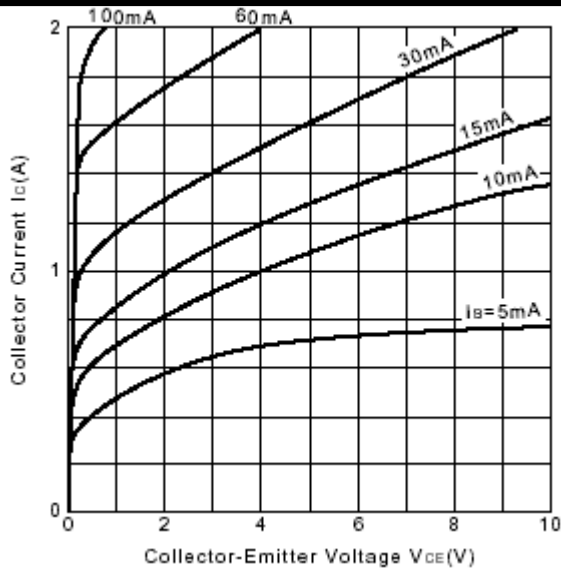


Fig.3 Static Characteristic

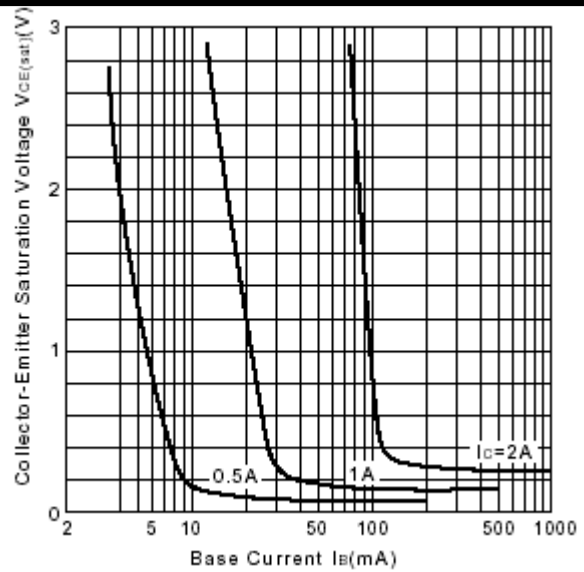


Fig.4 $V_{CE(sat)}$ - I_B Characteristics

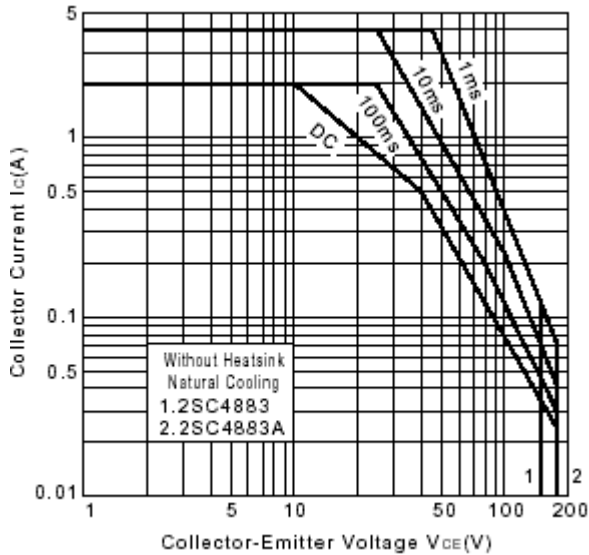


Fig.5 Safe Operating Area

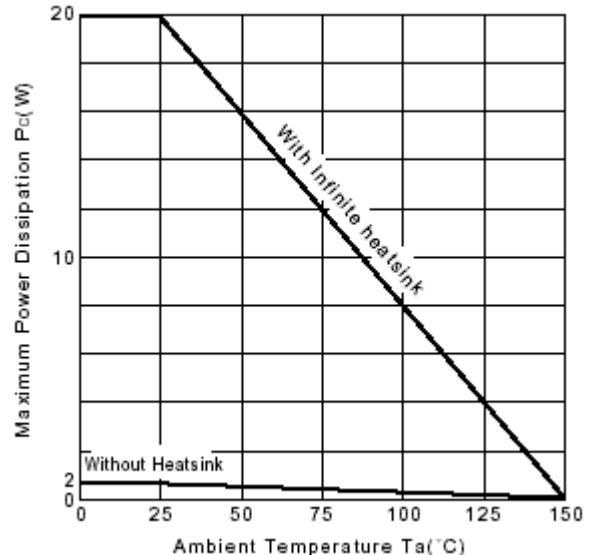


Fig.6 P_c - T_a Derating

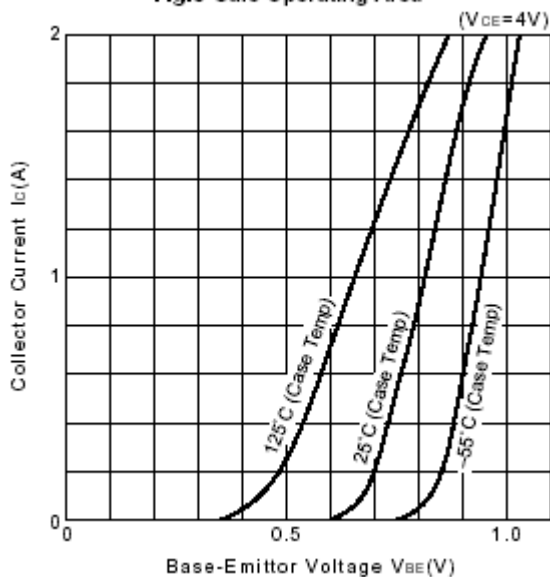


Fig.7 I_C - V_{BE}

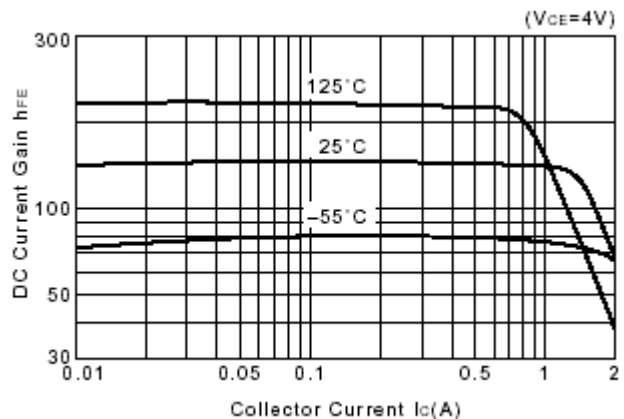


Fig.8 DC current Gain