

Silicon NPN Power Transistors

2SC4883 2SC4883A

DESCRIPTION

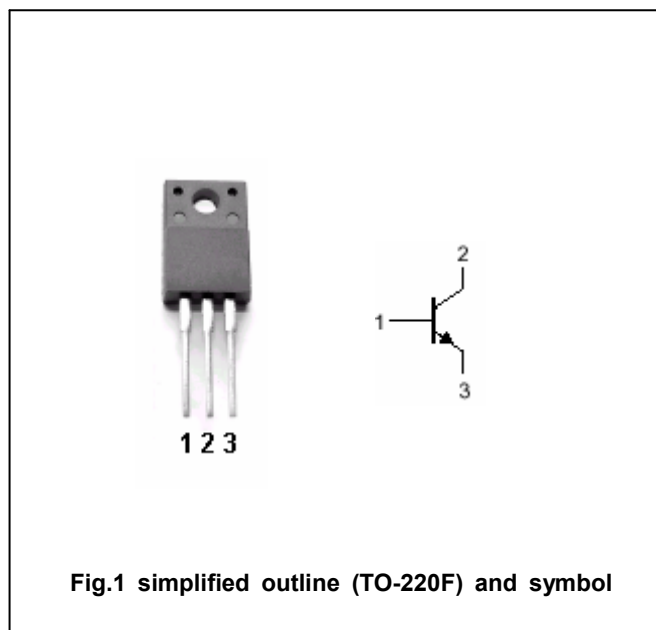
- With TO-220F package
- Complement to type 2SA1859/1859A

APPLICATIONS

- For audio output driver and TV velocity-modulation applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

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

Tj=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	μA
		2SC4883A	$V_{CB}=180V ; I_E=0$			10	μA
I_{EBO}	Emitter cut-off current		$V_{EB}=6V ; I_C=0$			10	μA
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	$I_C=1A ; I_{B1}=-I_{B2}=0.1A$ $V_{CC}=20V , R_L=20\Omega$		0.50		μs
t_s	Storage time			1.50		μs
t_f	Fall time			0.50		μs

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PACKAGE OUTLINE

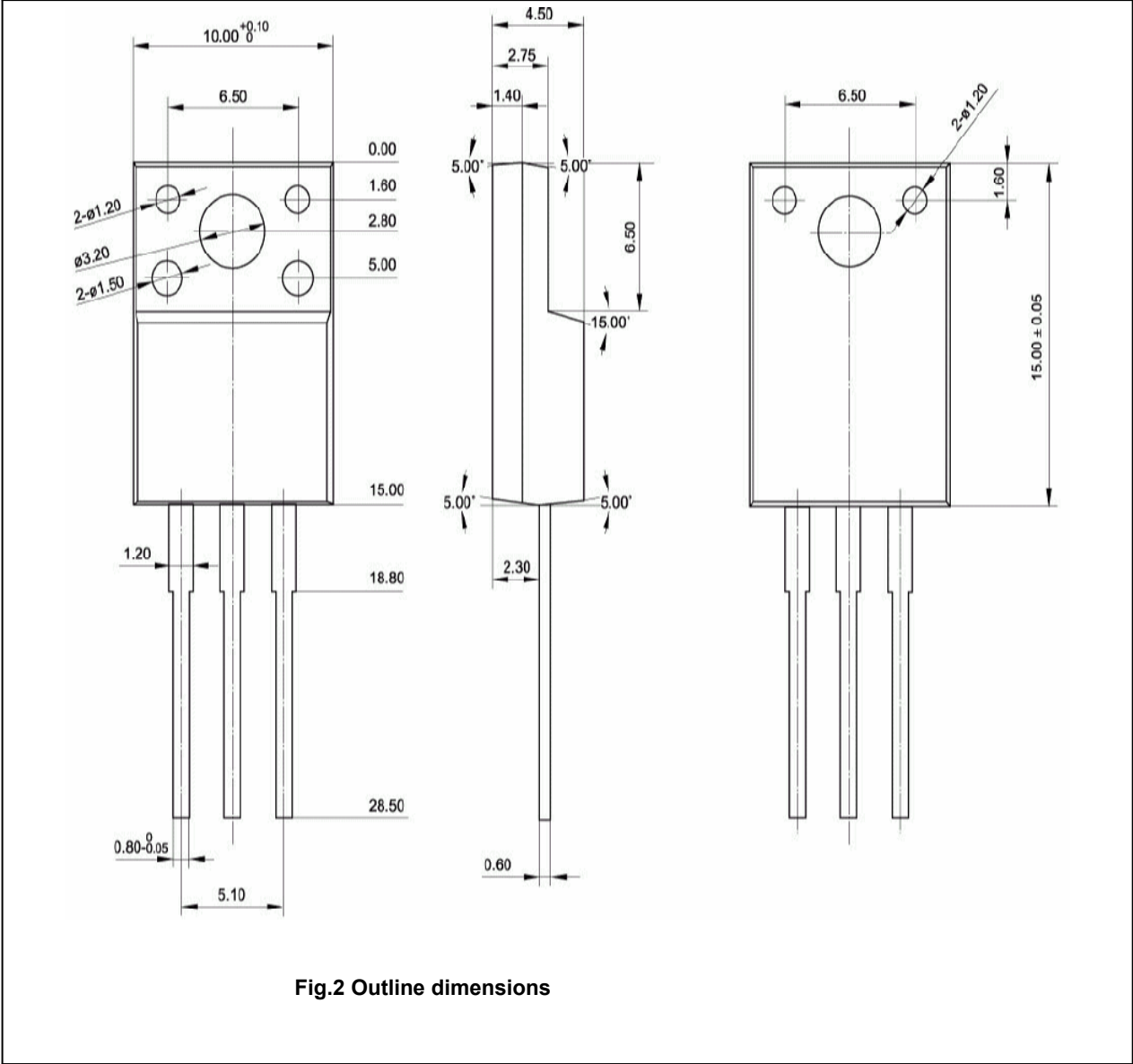


Fig.2 Outline dimensions

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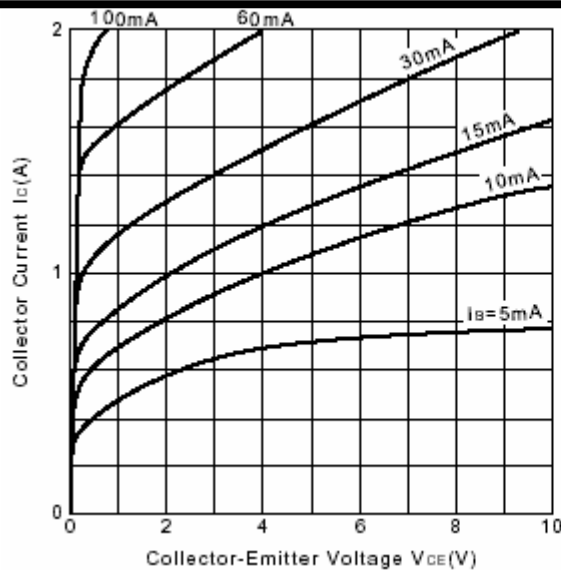


Fig.3 Static Characteristic

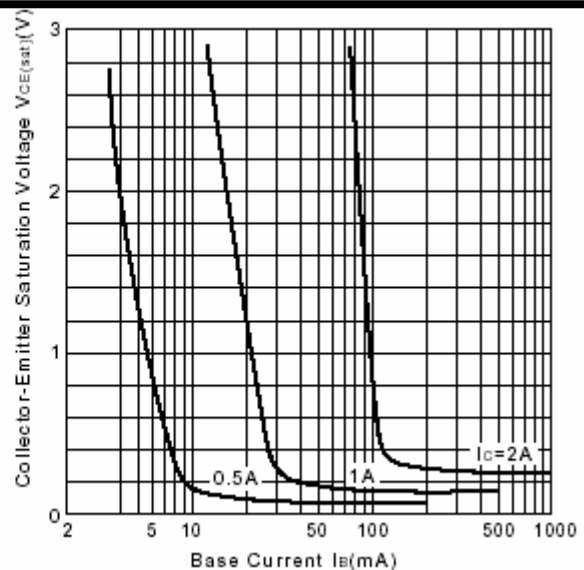
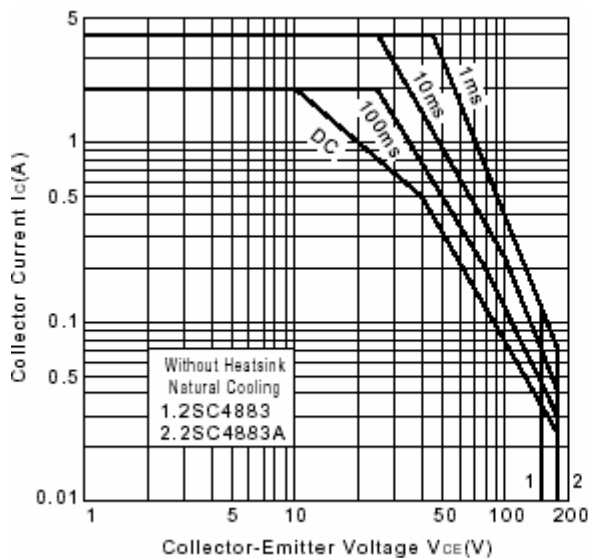
Fig.4 $V_{CE(sat)}$ - I_B Characteristics

Fig.5 Safe Operating Area

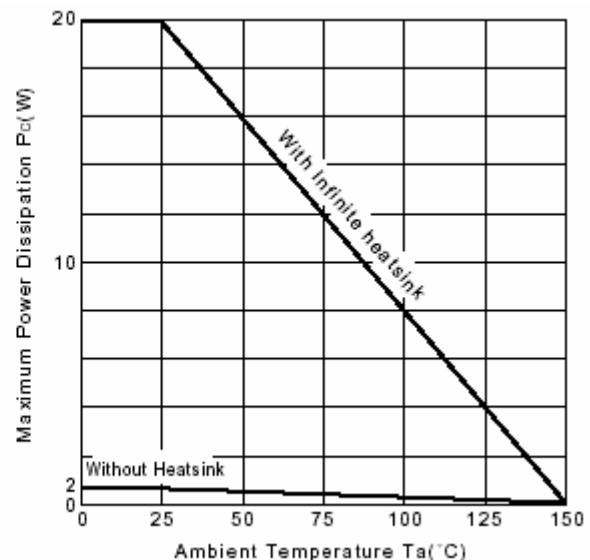
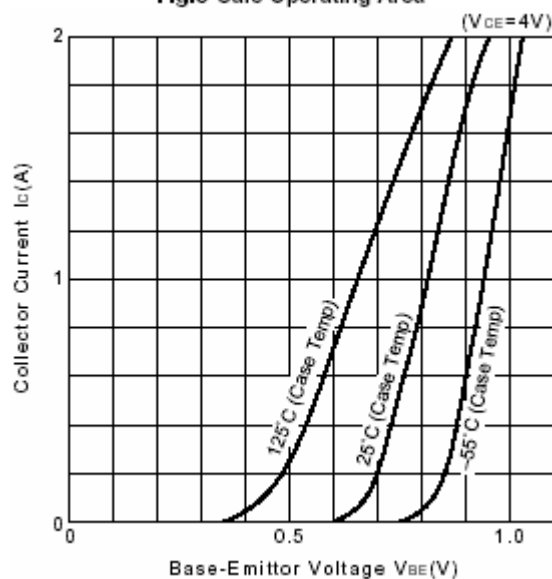
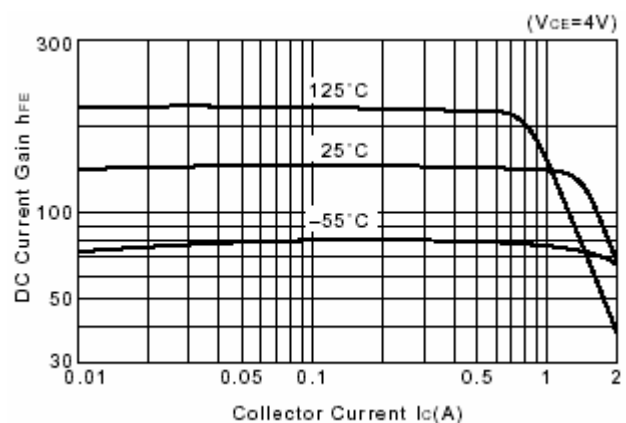
Fig.6 P_C - T_a DeratingFig.7 I_C - V_{BE} 

Fig.8 DC current Gain