Silicon PNP Power Transistors 2SA1859 2SA1859A

DESCRIPTION

- With TO-220F package
- Complement to type 2SC4883/4883A

APPLICATIONS

- For audio output driver and TV velocity-modulation applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

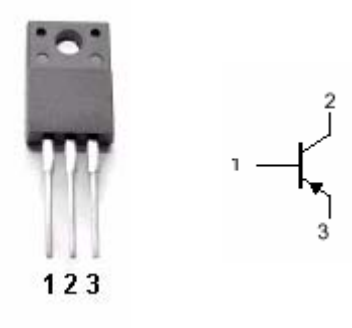

Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SA1859	Open emitter	-150	V
		2SA1859A		-180	
V_{CEO}	Collector-emitter voltage	2SA1859	Open base	-150	V
		2SA1859A		-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℃	20	W
T_j	Junction temperature			150	℃
T_{stg}	Storage temperature			-55~150	℃

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	2SA1859	I_C=-10mA ; I_B=0	-150			V
		2SA1859A		-180			
V_{CEsat}	Collector-emitter saturation voltage		I_C=-0.7A;I_B=-70mA			-1.0	V
I_{CBO}	Collector cut-off current	2SA1859	V_{CB}=-150V;I_E=0			-10	μA
		2SA1859A	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		60		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=20Ω		0.50		μs
t_s	Storage time				1.00		μs
t_f	Fall time				0.50		μs

PACKAGE OUTLINE

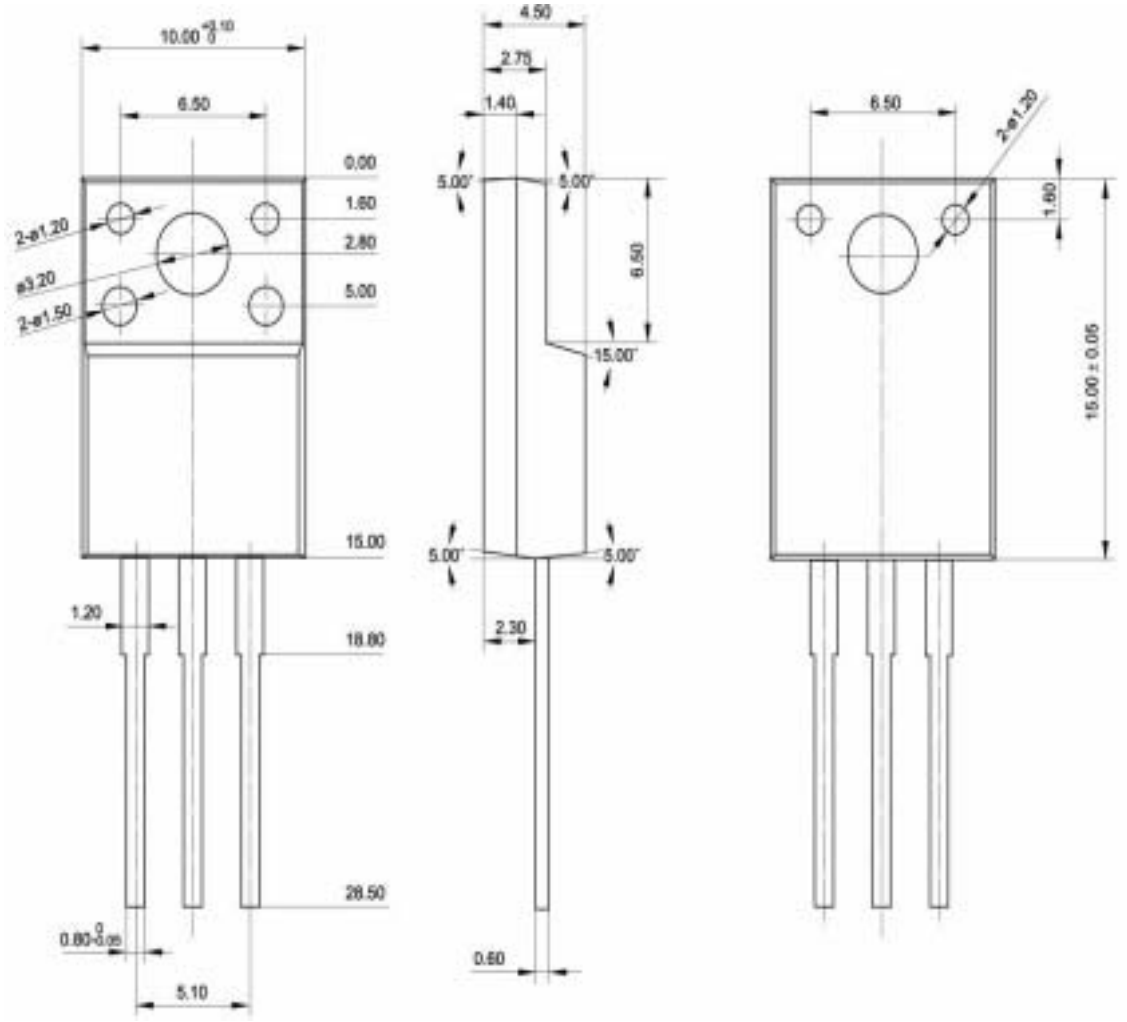

Fig.2 Outline dimensions

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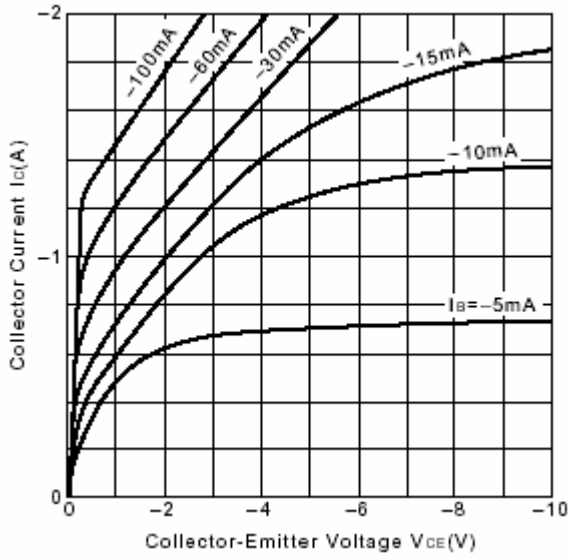

Fig.3 Static Characteristic

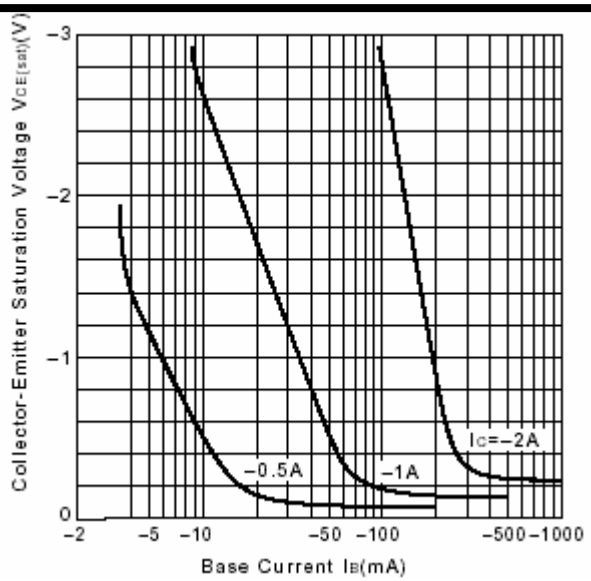

Fig.4 VCE(sat)−IB Characteristics

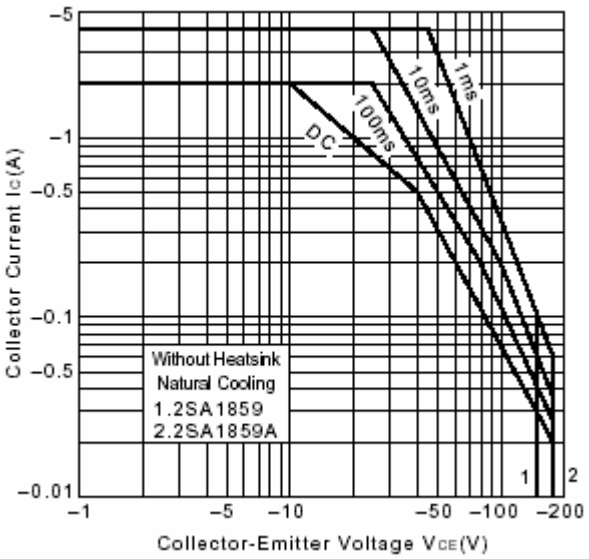

Fig.5 Safe Operating Area

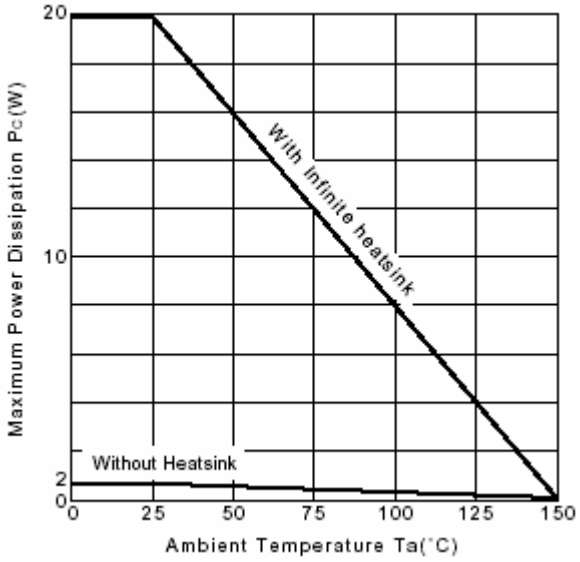

Fig.6 Power Derating

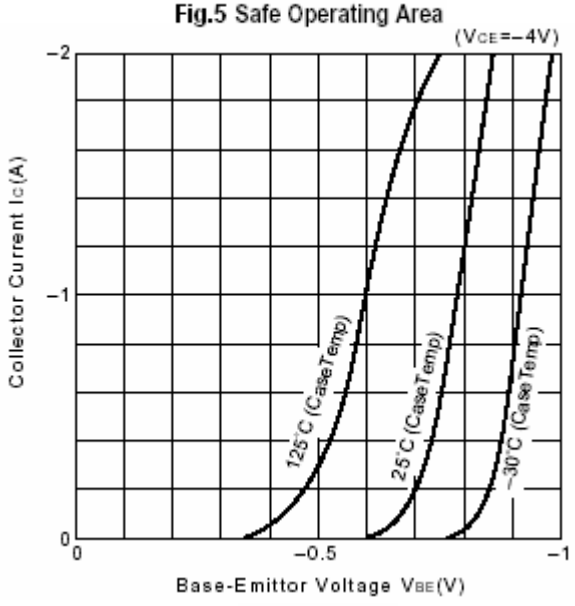

Fig.7 IC−VBE

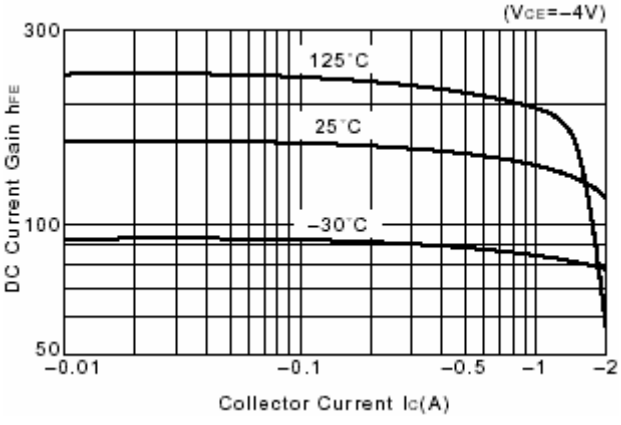

Fig.8 DC current Gain