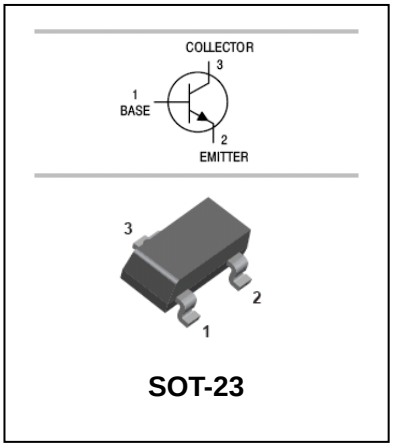
Silicon Epitaxial Planar Transistor **2SC2859**

FEATURES

Lead-free

- Power dissipation：P_C=150mW.
- Excellent h_{FE} linearity:$h_{FE(2)}$=25
  (V_{CE}=6V,I_C=400mA)
- Complementary to 2SA1182.



SOT-23

APPLICATIONS

- Audio frequency general purpose amplifier applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC2859	WO/WY/WG	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Voltage	35	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	500	mA
P_C	Collector Dissipation	150	mW
T_j,T_{stg}	Junction and Storage Temperature	-55~125	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	**Symbol**	**Test conditions**	**MIN**	**TYP**	**MAX**	**UNIT**
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=35V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=1V,I_C=100mA V_{CE}=6V,I_C=400mA	70 25		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA, I_B=10mA		0.1	0.25	V
Base-emitter voltage	V_{BE}	V_{CE}=1V, I_C=100mA		0.8	1.0	V
Collector output capacitance	C_{ob}	V_{CB}=6V,I_E=0,f=1MHz		7		pF
Transition frequency	f_T	V_{CE}=6V, I_C= 20mA		300		MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	G
Range	70-140	120-240	200-400

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

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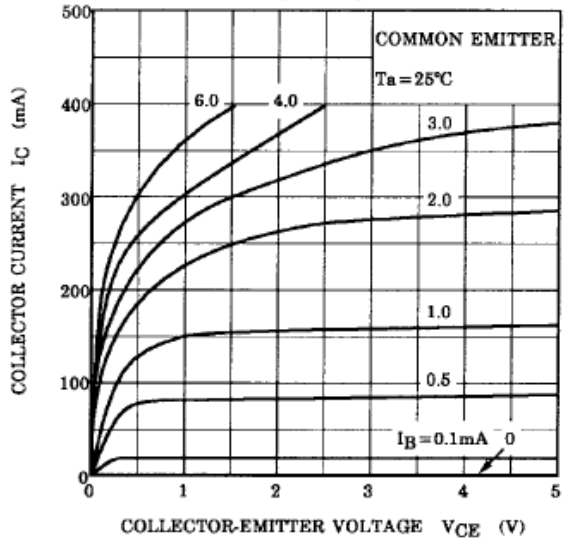
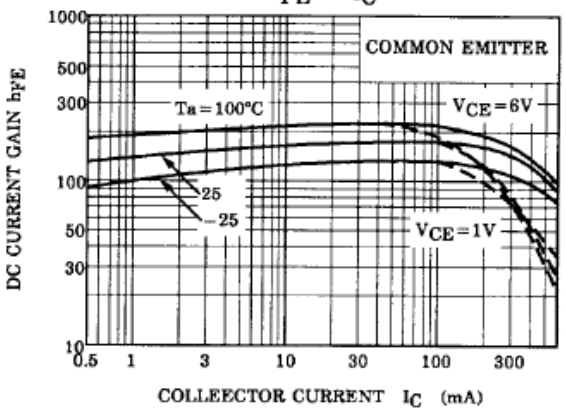
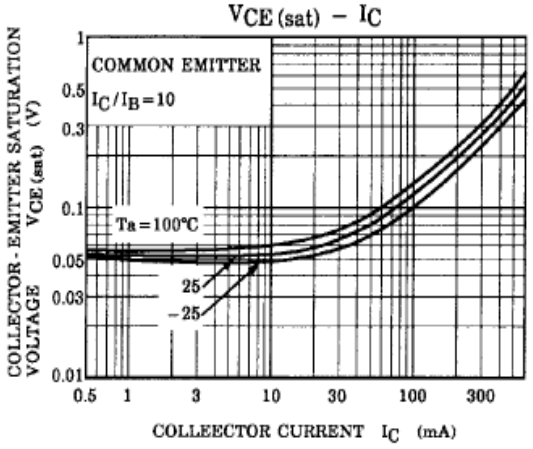
$I_C - V_{CE}$



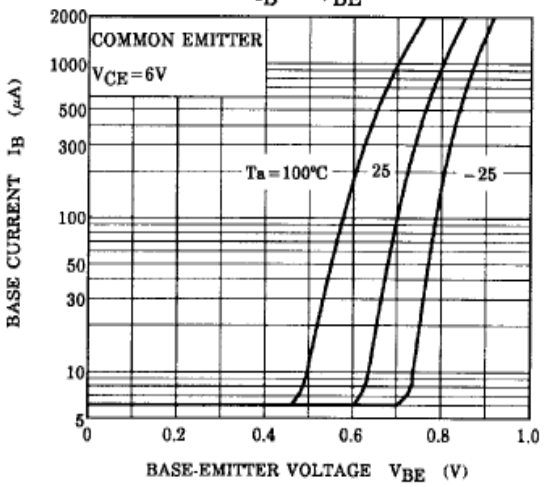
$h_{FE} - I_C$



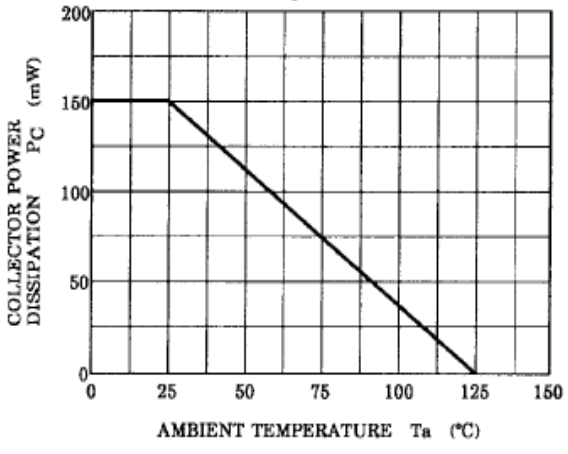
$V_{CE(sat)} - I_C$



$I_B - V_{BE}$



$P_C - Ta$



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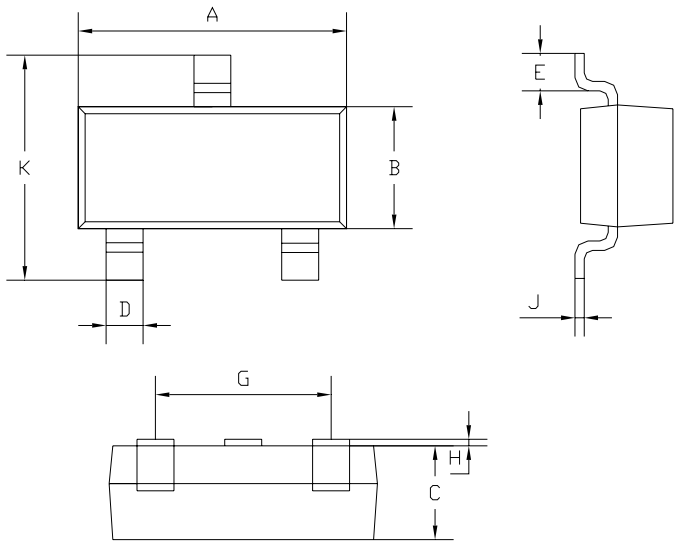
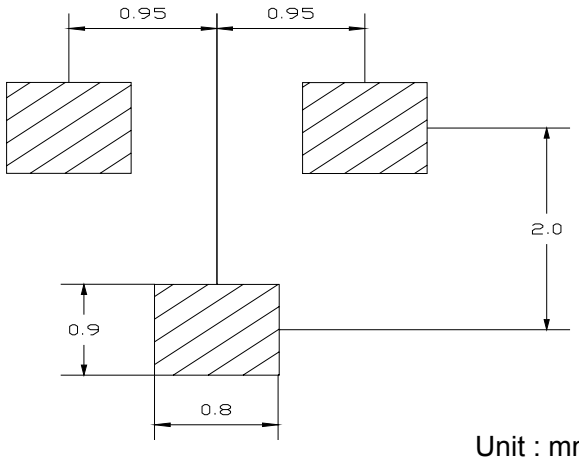
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
2SC2859	SOT-23	3000/Tape&Reel