

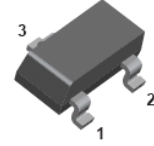
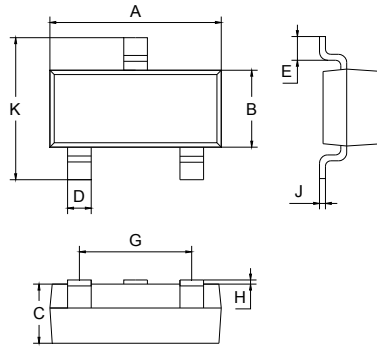


### FEATURES

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

### APPLICATIONS

- Audio frequency general purpose amplifier applications.



### ORDERING INFORMATION

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

### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ 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 to +125	$^\circ\text{C}$

SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

### ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

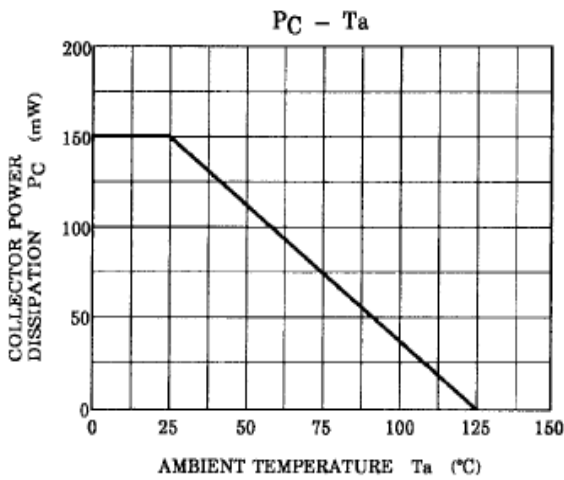
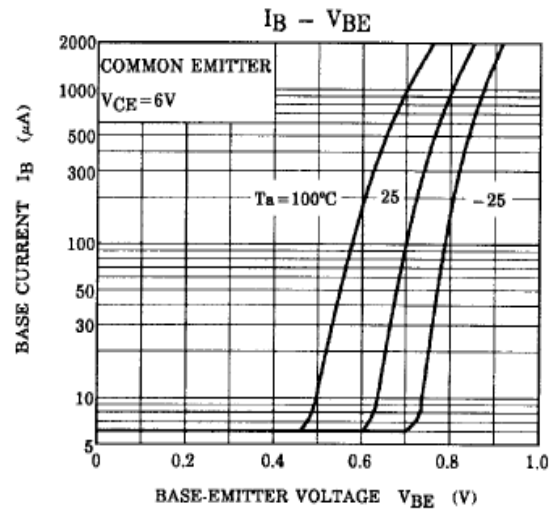
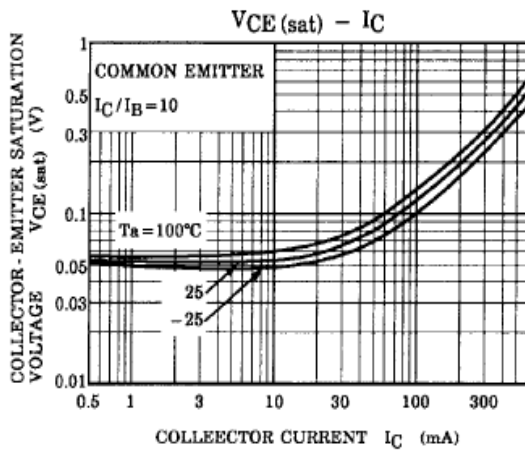
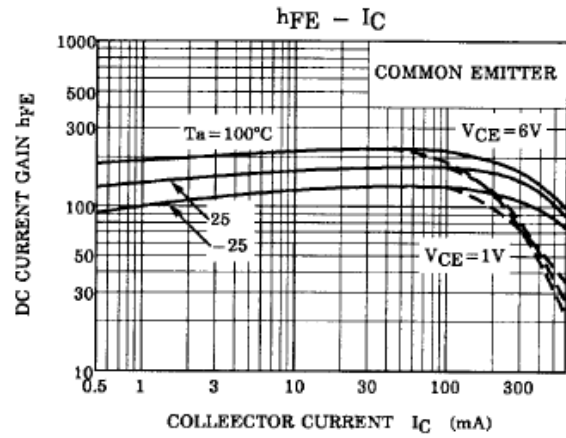
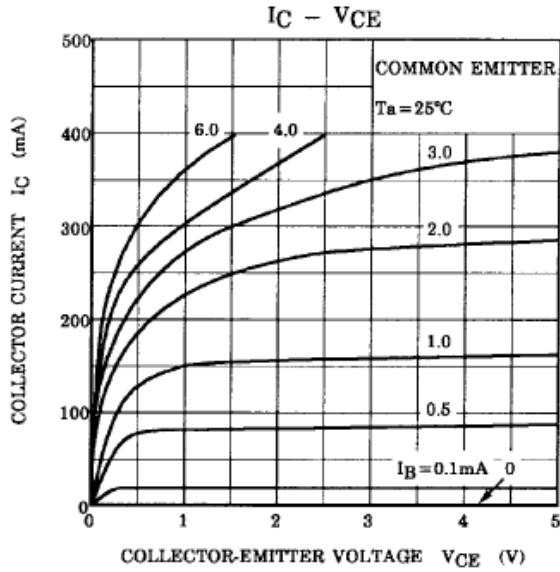
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector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

### CLASSIFICATION OF $h_{FE(1)}$

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



TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
SOT-23	3000pcs	7inch	45,000pcs	203×203×195	180,000pcs	438×438×220