

## Silicon Epitaxial Planar Transistor

## 2SA1162

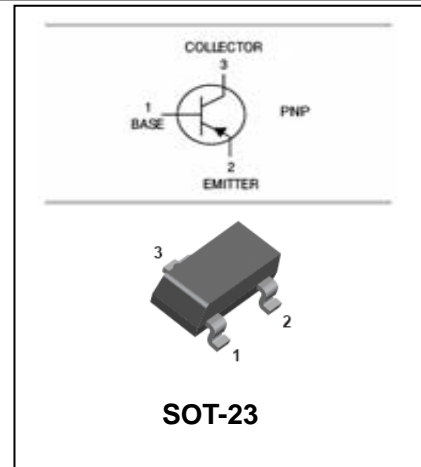
### FEATURES

- Excellent  $h_{FE}$  linearity.
- Complementary to 2SC2712.
- High voltage and high current.
- Low noise.



### APPLICATIONS

- General purpose application.



### ORDERING INFORMATION

Type No.	Marking	Package Code
2SA1162	SO/SY/SG	SOT-23

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-50	V
$V_{CEO}$	Collector-Emitter Voltage	-50	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-150	mA
$I_B$	Base Current	-30	mA
$P_C$	Collector Dissipation	150	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to +125	$^\circ\text{C}$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-50V, I_E=0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5V, I_C=0$			-0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=-6V, I_C=-2mA$	70		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-100mA, I_B=-10mA$		-0.1	-0.3	V
Transition frequency	$f_T$	$V_{CE}=-10V, I_C=-1mA$	80			MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-10V, I_E=0, f=1MHz$		4	7	pF
Noise figure	NF	$V_{CE}=-6V, I_C=-0.1mA,$ $f=1kHz, R_g=10k\Omega$		1.0	10	dB

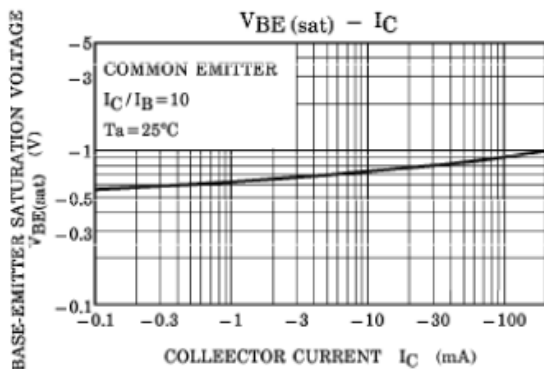
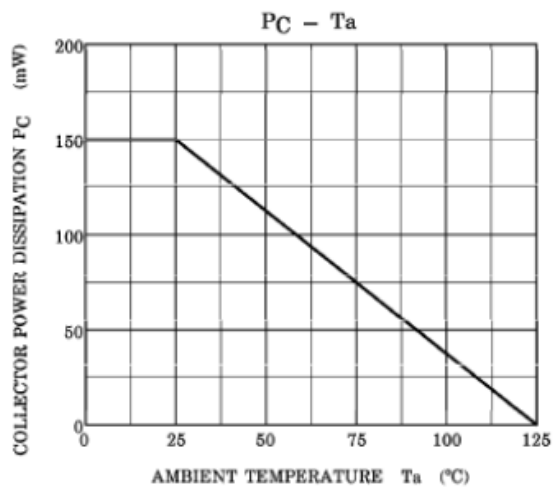
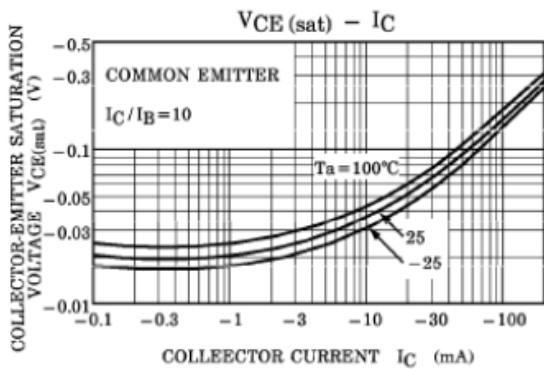
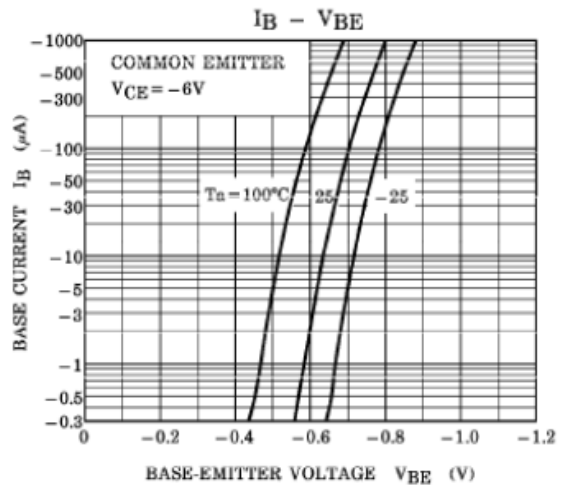
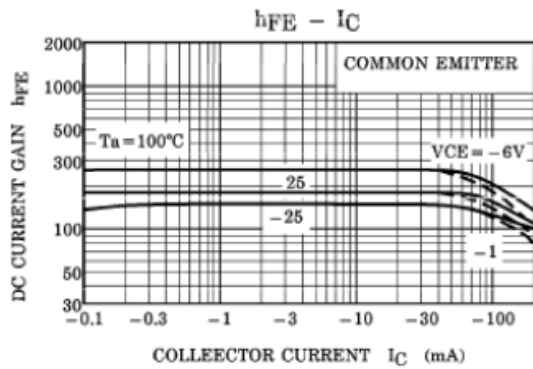
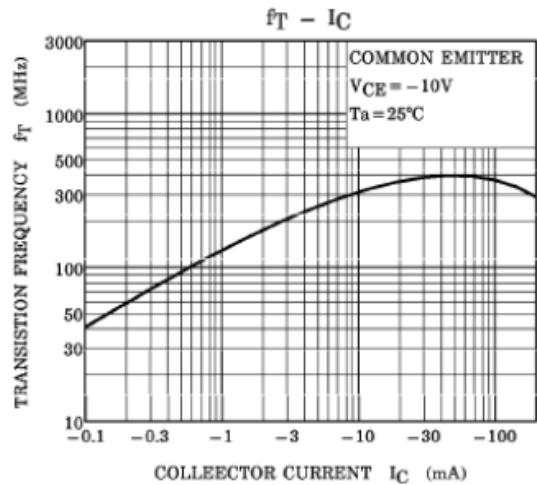
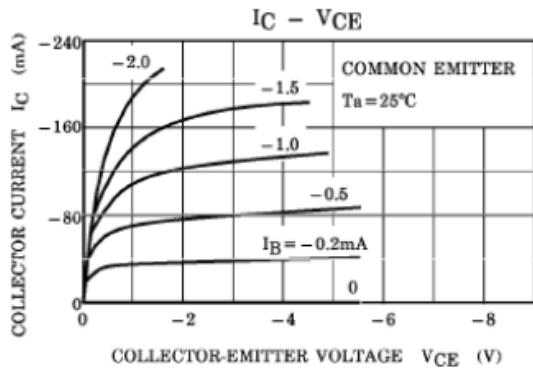
CLASSIFICATION OF  $h_{FE(1)}$

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

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TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



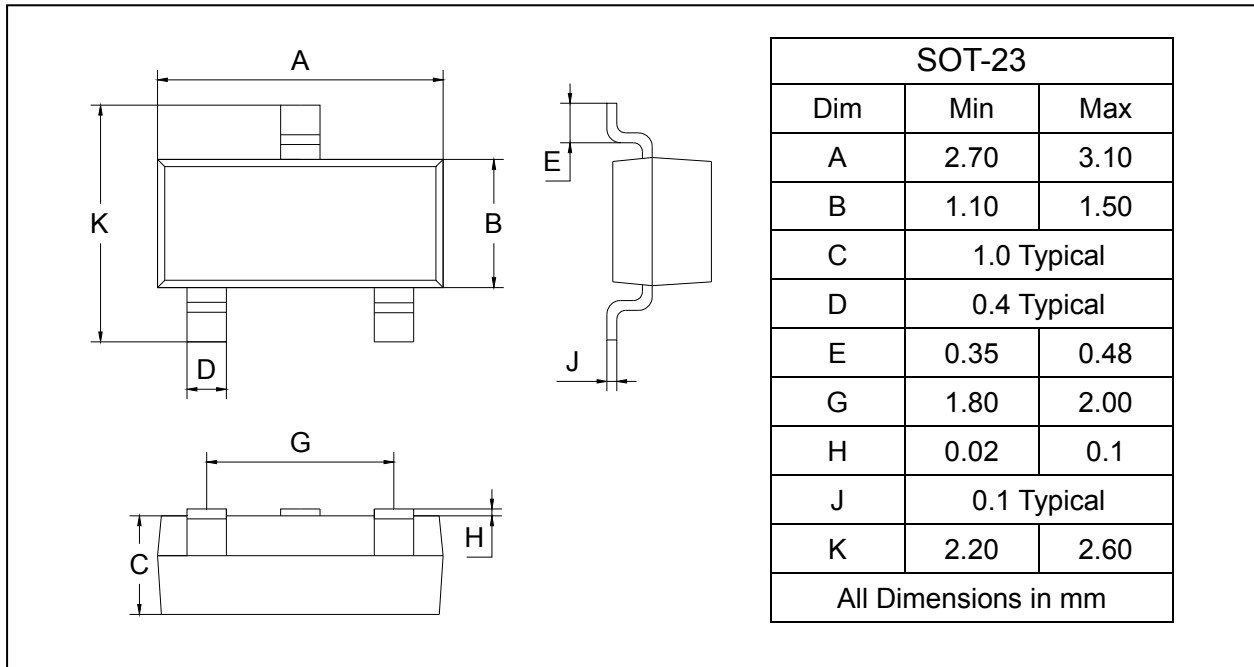
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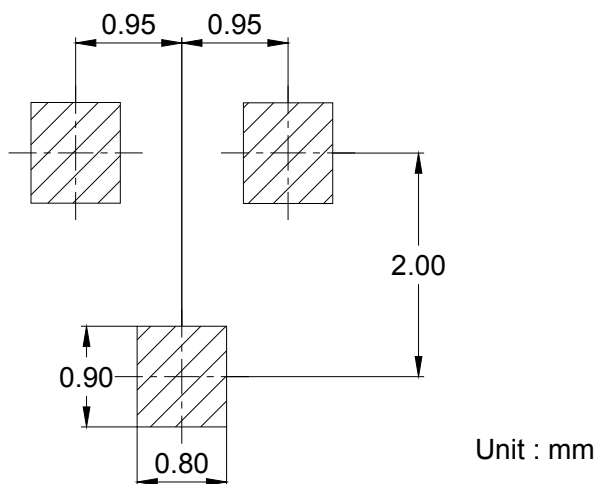
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

Device	Package	Shipping
2SA1162	SOT-23	3000/Tape&Reel