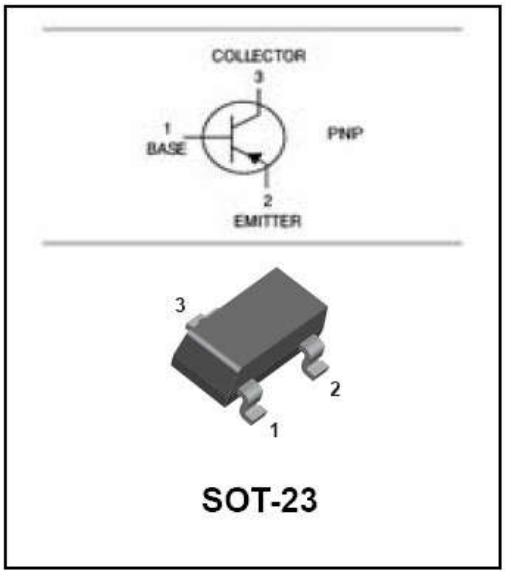
2SA1162

Silicon Epitaxial Planar Transistor



FEATURES

- Low noise: NF=1dB(Typ),10dB(Max).
- Complementary to 2SC2712.
- Small package.

APPLICATIONS

- General purpose application.

ORDERING INFORMATION

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

MAXIMUM RATING @ Ta=25℃ 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
P_C	Collector Dissipation	150	mW
T_j,T_{stg}	Junction and Storage Temperature	-55~125	℃

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

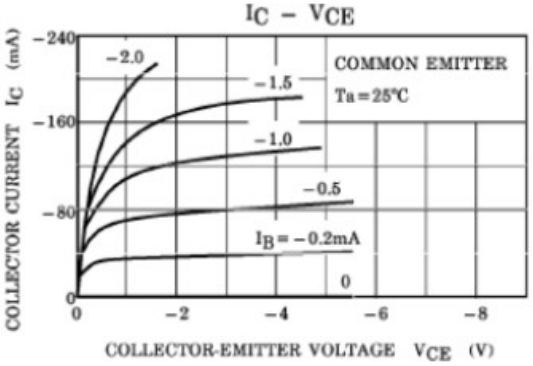
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA,I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-50V,I_E=0			-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}=-6V,I_C=-2mA	70		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-10mA			-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			7	pF
Noise figure	NF	V_{CE}=-6V,I_C=0.1mA, f=1MHz,R_g=10kΩ			10	dB

CLASSIFICATION OF $h_{FE(1)}$

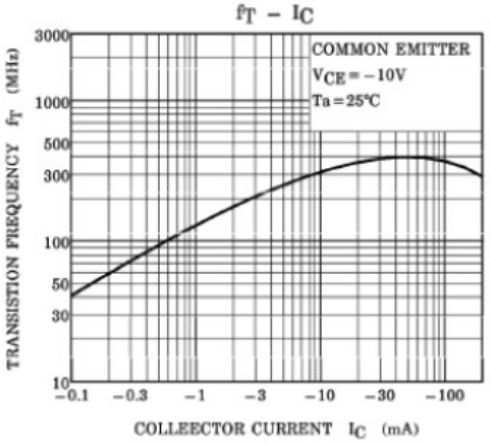
Rank	O	Y	G
Range	70-140	120-240	200-400

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

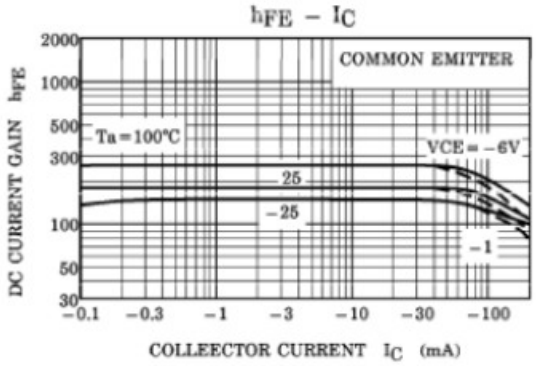
I_C – V_{CE}



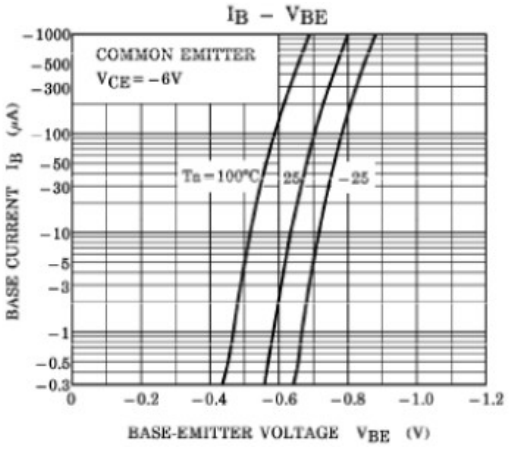
f_T – I_C



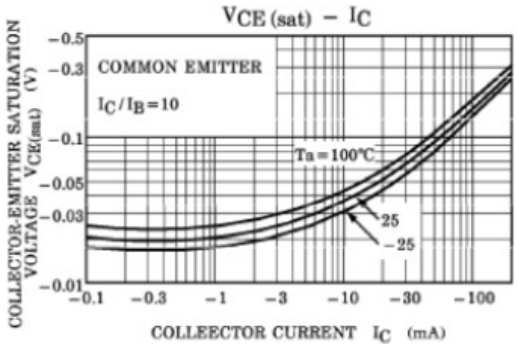
h_{FE} – I_C



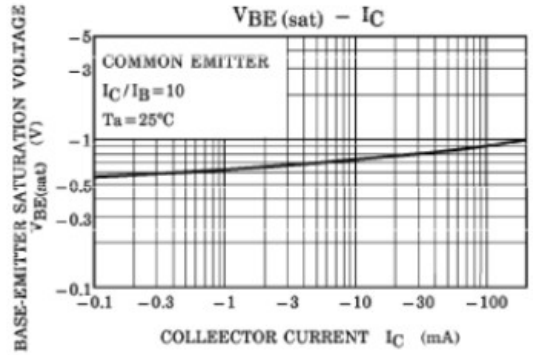
I_B – V_{BE}



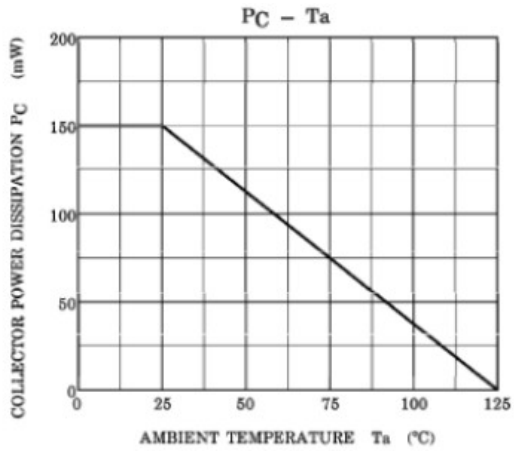
$V_{CE(sat)}$ – I_C



$V_{BE(sat)}$ – I_C

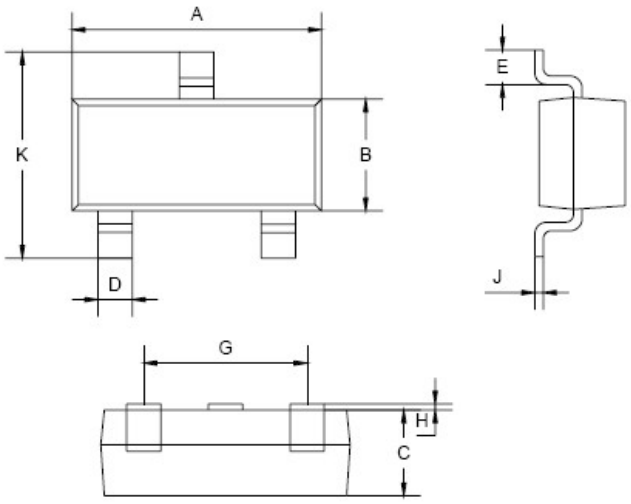


P_C – T_a



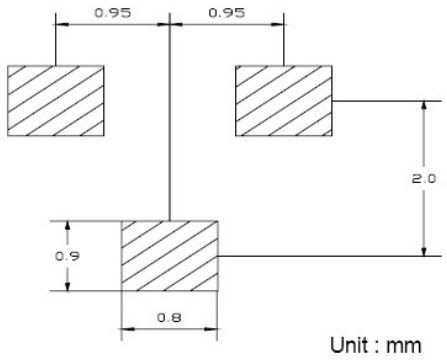
PACKAGE OUTLINE

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
2SA1162	SOT-23	3000/Tape&Reel