

Silicon Epitaxial Planar Transistor**2SB1197****FEATURES**

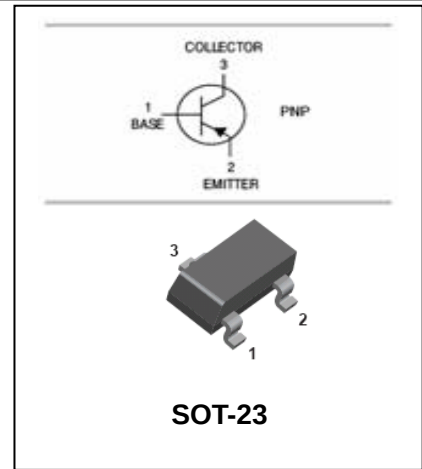
- Small surface mounting type.
- Corrector peak current(Max.=1000mA)
- Suitable for high packing density.
- Low voltage(Max.=40v)
- High saturation current capability.
- Voltage controlled small signal switch.



Lead-free

APPLICATIONS

- Telephone and professional communication equipment.
- Other switching applications.

**SOT-23****ORDERING INFORMATION**

Type No.	Marking	Package Code
2SB1197	AHP,AHQ,AHR	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	-40	V
V _{CEO}	Collector-Emitter Voltage	-32	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current DC	-800	mA
I _{CM}	Peak Collector Current	-1	A
I _{BM}	Peak Base Current	-80	mA
P _C	Collector Dissipation	200	mW
T _J , T _{stg}	Junction and Storage Temperature	-65~150	℃

Silicon Epitaxial Planar Transistor**2SB1197****ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-50\mu A, I_E=0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-32			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-50\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-20V, I_E=0$			-0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.5	μA
DC current gain	h_{FE}	$V_{CE}=-3V, I_C=-100mA$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500mA, I_B=-50mA$			-0.5	V
Transition frequency	f_T	$V_{CE}=-5V, I_C=-50mA$ $f=100MHz$	50			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V, I_E=0, f=1MHz$		30		pF

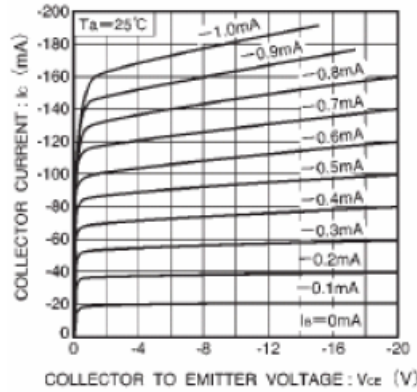
CLASSIFICATION OF $h_{FE(1)}$

Range	82-180	120-270	180-390
Marking	P	Q	R

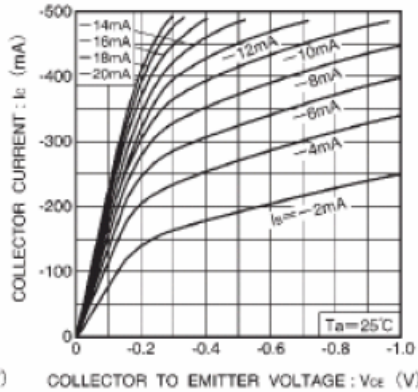
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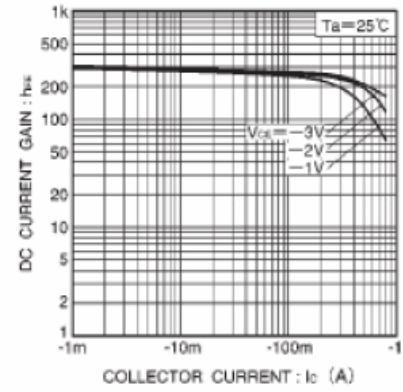
TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



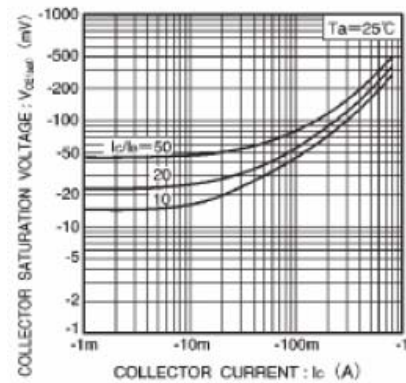
Grounded emitter output characteristics (I)



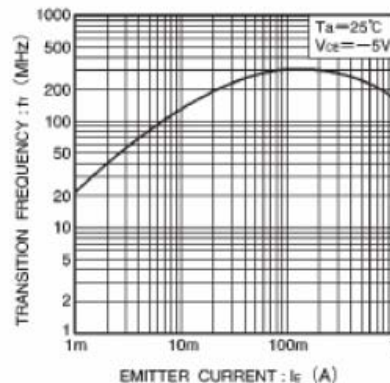
Grounded emitter output characteristics (II)



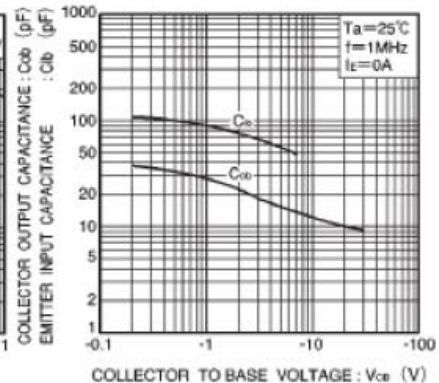
DC current gain vs. collector current



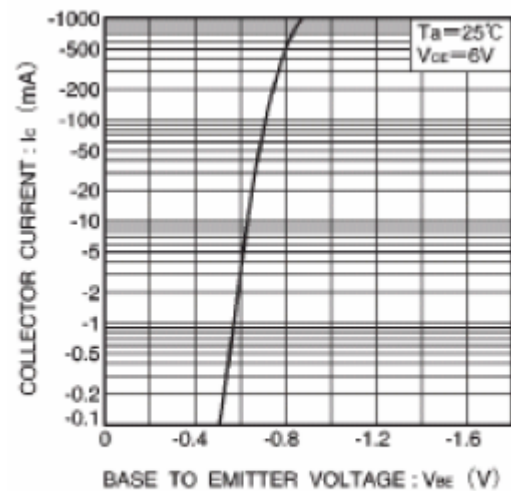
Collector-emitter saturation voltage vs. collector current



Gain bandwidth product vs. emitter current



Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage



Grounded emitter propagation characteristics

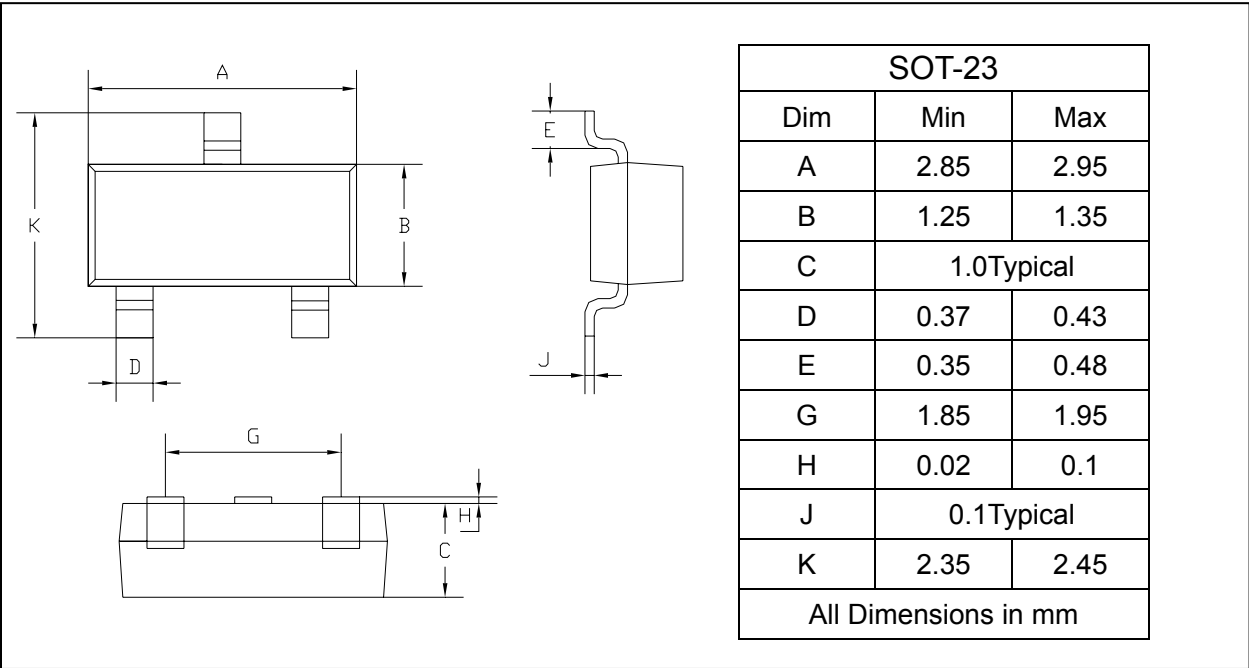
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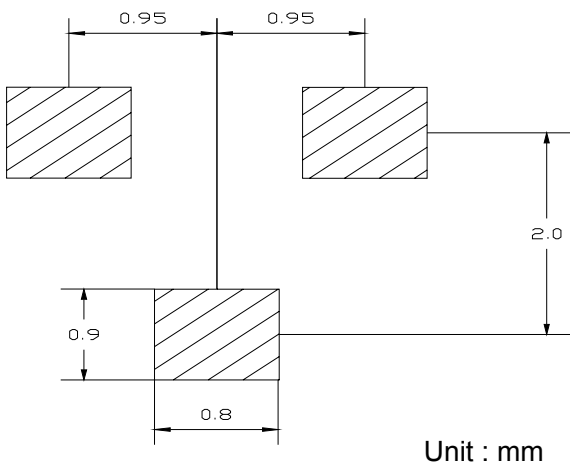
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SB1197	SOT-23	3000/Tape&Reel