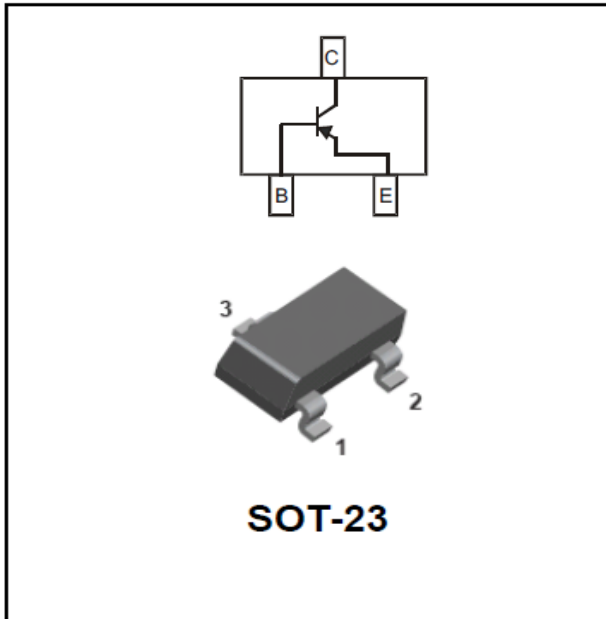


## PNP General Purpose Amplifier



### Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- Marking:

2SB1197-P	AHP
2SB1197-Q	AHQ
2SB1197-R	AHR

### ■ Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	$V_{CBO}$	V	$I_C = -50\mu A, I_E = 0$	-40
Collector-Emitter Voltage	$V_{CEO}$	V	$I_C = -1mA, I_B = 0$	-32
Emitter-Base Voltage	$V_{EBO}$	V	$I_E = -50\mu A, I_C = 0$	-5
Collector Current	$I_C$	mA		-800
Collector Power Dissipation	$P_C$	mW		200
Operation Junction Temperature	$T_j$	°C		150
Storage Temperature	$T_{stg}$	°C		-55 to +150

### ■ Electrical Characteristics (Ta=25°C unless otherwise noted)

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



## ■ CLASSIFICATION OF HFE

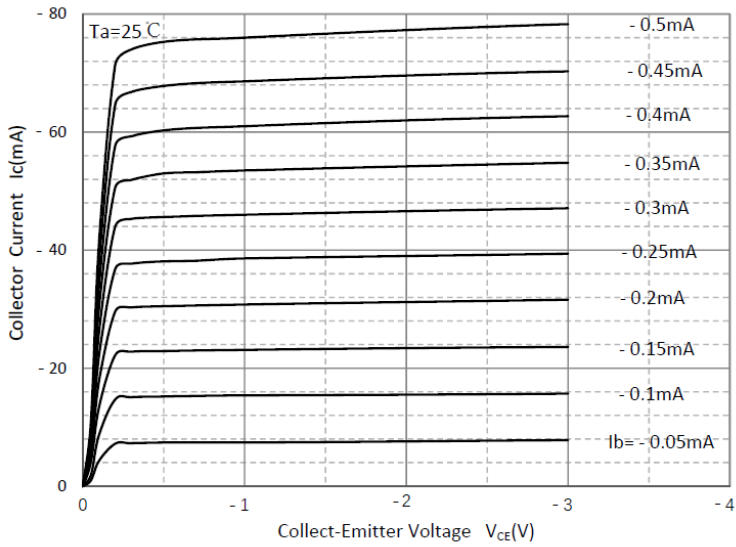
Rank	P	Q	R
Range	82-180	120-270	180-390

## ■ Ordering Information (Example)

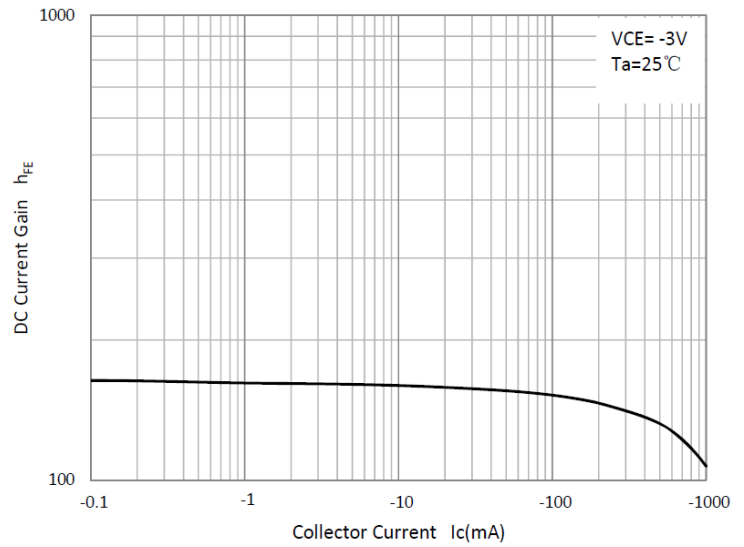
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
2SB1197	F2	Approximate 0.008	3000	30000	120000	7" reel

## ■ Characteristics (Typical)

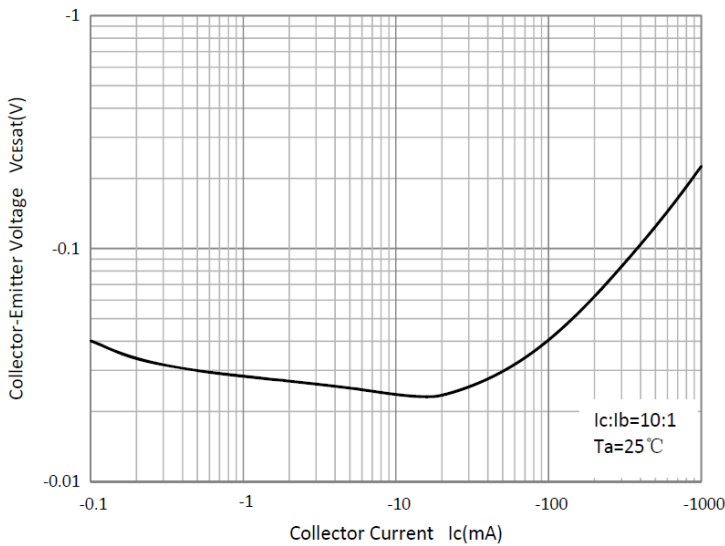
### Static Characteristic



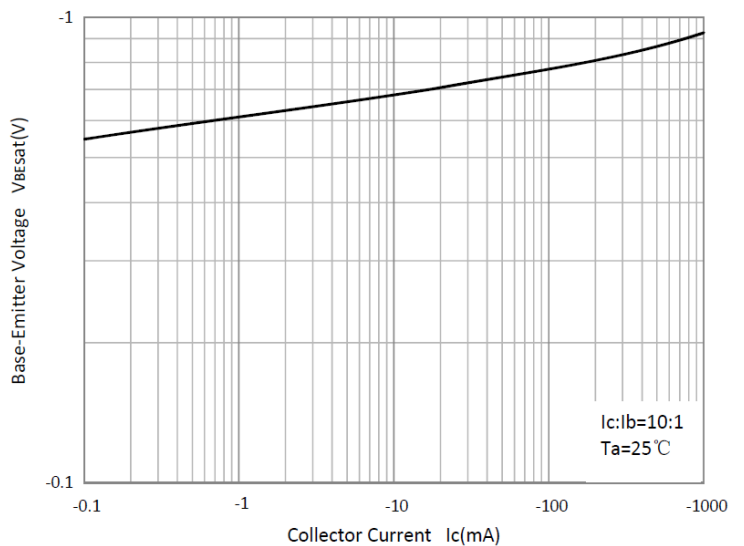
### DC Current Gain



### Collector-Emittor Saturation Voltage

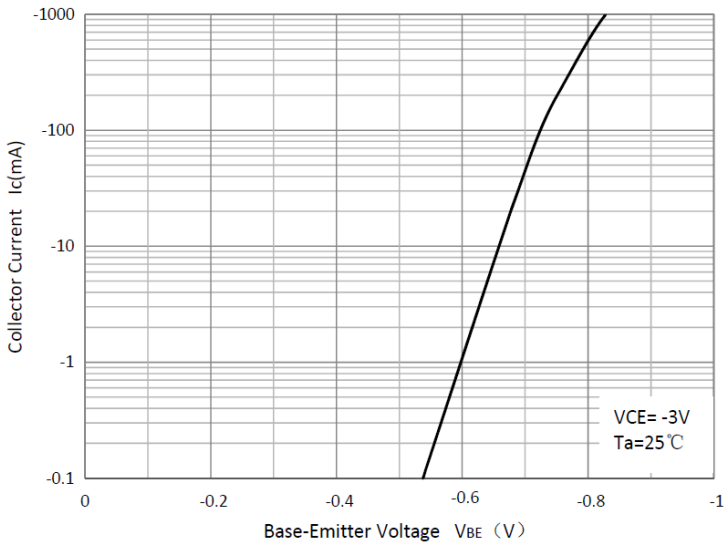


### Base-Emittor Saturation Voltage

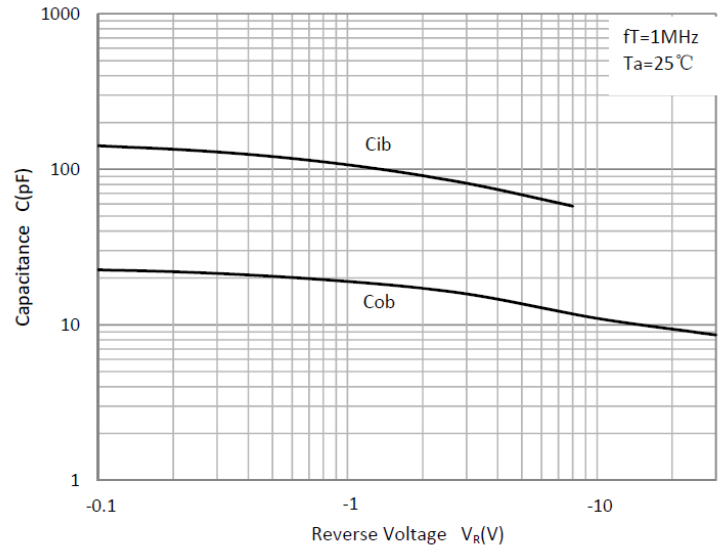




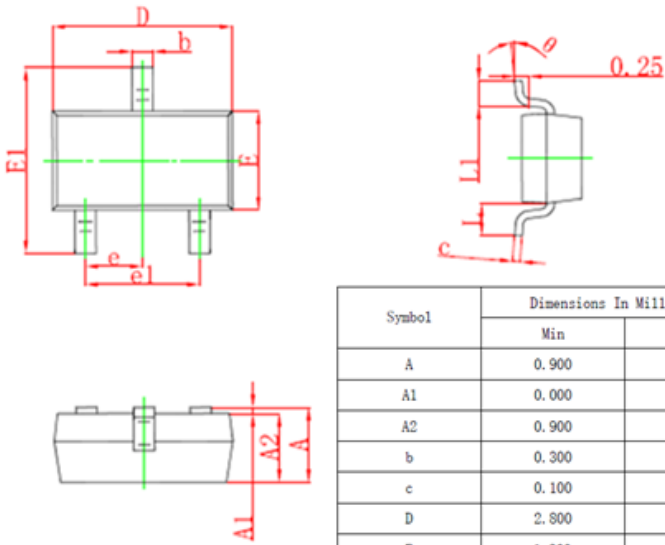
Base-Emitter On Voltage



$C_{ob}/C_{ib}-V_{CB}/V_{EB}$

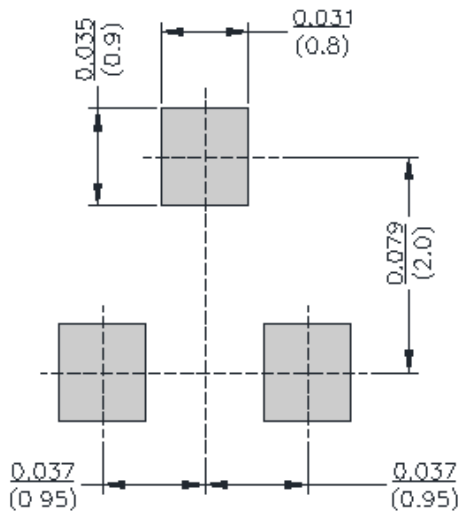


## ■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
ø	0°	8°	0°	8°

## ■SOT-23 Soldering Footprint





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