



Micro Commercial Components



Micro Commercial Components  
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**2SB1197-P**  
**2SB1197-Q**  
**2SB1197-R**

## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Small Package
- Mounting: any position
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

### Maximum Ratings @ $T_a = 25^\circ\text{C}$ (unless otherwise noted)

Symbol	Parameter	Value	Unit
$I_C$	Collector Current	-0.8	A
$P_D$	Total Device Dissipation	0.2	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$

### Electrical Characteristics @ $25^\circ\text{C}$ Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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#### OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C = -1\text{mA dc}, I_E = 0$ )	-32		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C = -50\text{uAdc}, I_E = 0$ )	-40		V
$V_{(BR)EBO}$	Collector-Base Breakdown Voltage ( $I_E = -50\text{uAdc}, I_C = 0$ )	-5.0		V
$I_{CBO}$	Collector-Base Cutoff Current ( $V_{CB} = -20\text{Vdc}, I_E = 0$ )		-0.5	$\mu\text{Adc}$
$I_{EBO}$	Emitter-Base Cutoff Current ( $V_{EB} = -4.0\text{Vdc}, I_C = 0$ )		-0.5	$\text{uAdc}$

#### ON CHARACTERISTICS

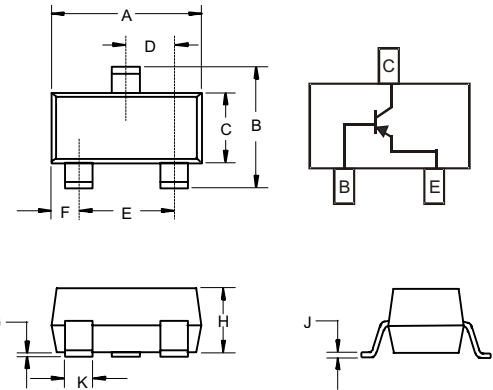
$h_{FE}$	DC Current Gain ( $I_C = -100\text{mA dc}, V_{CE} = -3.0\text{Vdc}$ )	82	390	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C = -500\text{mA dc}, I_E = -50\text{mA dc}$ )		-0.5	Vdc
$f_T$	Transition Frequency ( $V_{CE} = -5\text{Vdc}, I_C = -50\text{mA dc}, f = 100\text{MHZ}$ )	50		MHZ

#### CLASSIFICATION OF $h_{FE}$

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	AHP	AHQ	AHR

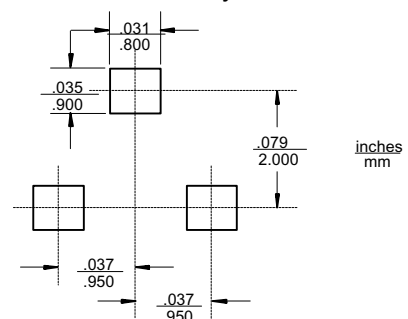
## PNP Silicon Epitaxial Transistors

### SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

#### Suggested Solder Pad Layout





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### Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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