



Micro Commercial Components

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**2SB1197**  
**2SB1197-P**  
**2SB1197-Q**  
**2SB1197-R**

**Features**

- Small Package
- Mounting: any position
- ROHS Compliant
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

**PNP Silicon Epitaxial Transistors**

**Maximum Ratings @ T<sub>a</sub> = 25°C (unless otherwise noted)**

| Symbol           | Parameter                 | Value       | Unit |
|------------------|---------------------------|-------------|------|
| I <sub>C</sub>   | Collector Current         | -0.8        | A    |
| P <sub>D</sub>   | Total Device Dissipation  | 0.2         | W    |
| T <sub>J</sub>   | Junction Temperature      | 150         | °C   |
| T <sub>STG</sub> | Storage Temperature Range | -55 to +150 | °C   |

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

| Symbol | Parameter | Min | Max | Units |
|--------|-----------|-----|-----|-------|
|--------|-----------|-----|-----|-------|

**OFF CHARACTERISTICS**

|                      |                                                                               |      |      |      |
|----------------------|-------------------------------------------------------------------------------|------|------|------|
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown Voltage (I <sub>C</sub> =-1mA, I <sub>B</sub> =0) | -32  |      | V    |
| V <sub>(BR)CBO</sub> | Collector-Base Breakdown Voltage (I <sub>C</sub> =-50uAdc, I <sub>E</sub> =0) | -40  |      | V    |
| V <sub>(BR)EBO</sub> | Collector-Base Breakdown Voltage (I <sub>E</sub> =-50uAdc, I <sub>C</sub> =0) | -5.0 |      | V    |
| I <sub>CBO</sub>     | Collector-Base Cutoff Current (V <sub>CB</sub> =-20Vdc, I <sub>E</sub> =0)    |      | -0.5 | uAdc |
| I <sub>EBO</sub>     | Emitter-Base Cutoff Current (V <sub>EB</sub> =-4.0Vdc, I <sub>C</sub> =0)     |      | -0.5 | uAdc |

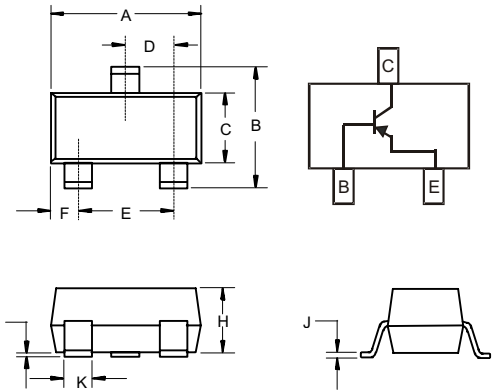
**ON CHARACTERISTICS**

|                      |                                                                                      |    |      |     |
|----------------------|--------------------------------------------------------------------------------------|----|------|-----|
| h <sub>FE</sub>      | DC Current Gain (I <sub>C</sub> =-100mA, V <sub>CE</sub> =-3.0Vdc)                   | 82 | 390  |     |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage (I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA) |    | -0.5 | Vdc |
| f <sub>T</sub>       | Transition Frequency (V <sub>CE</sub> =-5Vdc, I <sub>C</sub> =-50mA, f=100MHZ)       | 50 |      | MHZ |

**CLASSIFICATION OF h<sub>FE</sub>**

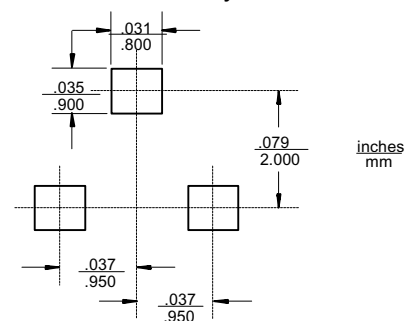
| Rank    | P      | Q       | R       |
|---------|--------|---------|---------|
| Range   | 82-180 | 120-270 | 180-390 |
| Marking | AHP    | AHQ     | AHR     |

**SOT-23**



| DIM | INCHES |       | MM   |      | NOTE |
|-----|--------|-------|------|------|------|
|     | MIN    | MAX   | MIN  | MAX  |      |
| A   | .110   | .120  | 2.80 | 3.04 |      |
| B   | .083   | .098  | 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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