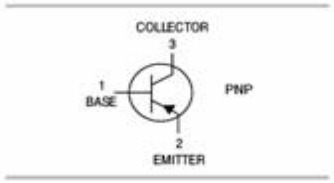
# PNP Silicon Epitaxial Planar Transistor **2SA1797**

## FEATURES

Lead-free

- Low $V_{CE(sat)}$=-0.35V(Max.)
  ($I_C/I_B$=-1A/-0.5A).
- Excellent DC current gain characteristics.
- Power dissipation $P_D$:0.5W.







**SOT-89**

## APPLICATIONS

- Low frequency transistor.

## ORDERING INFORMATION

| Type No. | Marking | Package Code |
|---|---|---|
| 2SA1797 | AGP/AGQ | SOT-89 |

## MAXIMUM RATING @ Ta=25℃ unless otherwise specified

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -55 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -55 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -6 | V |
| $I_C$ | Collector Current DC<br>Pulse | -2<br>-5 | A |
| $P_C$ | Collector Dissipation | 500 | mW |
| $T_j$,$T_{stg}$ | Junction and Storage Temperature | -55~150 | ℃ |

# PNP Silicon Epitaxial Planar Transistor **2SA1797**

## ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C$=-50μA,$I_E$=0 | -50 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C$=-1.0mA,$I_B$=0 | -50 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E$=-50μA,$I_C$=0 | -6 | | | V |
| Collector cut-off current | $I_{CBO}$ | $V_{CB}$=-50V,$I_B$=0 | | | -0.1 | μA |
| Emitter cut-off current | $I_{EBO}$ | $V_{EB}$=-5V,$I_C$=0 | | | -0.1 | μA |
| DC current gain | $h_{FE}$ | $V_{CE}$=-2V,$I_C$=-500mA | 82 | | 270 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C$=-1A, $I_B$=-50mA | | -0.15 | -0.35 | V |
| Transition frequency | $f_T$ | $V_{CE}$=-2V, $I_E$=-500mA f=100MHz | | 200 | | MHz |
| Collector output capacitance | $C_{ob}$ | $V_{CB}$=-10V,$I_E$=0,f=1MHz | | 36 | | pF |

## CLASSIFICATION OF $h_{FE}$

| Rank | P | Q |
|---|---|---|
| Range | 82-180 | 120-270 |
| Marking | AGP | AGQ |

## TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

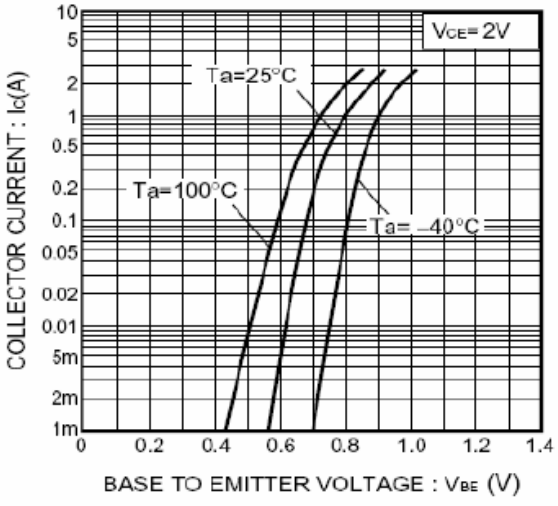



Fig.1 Grounded emitter propagation characteristics

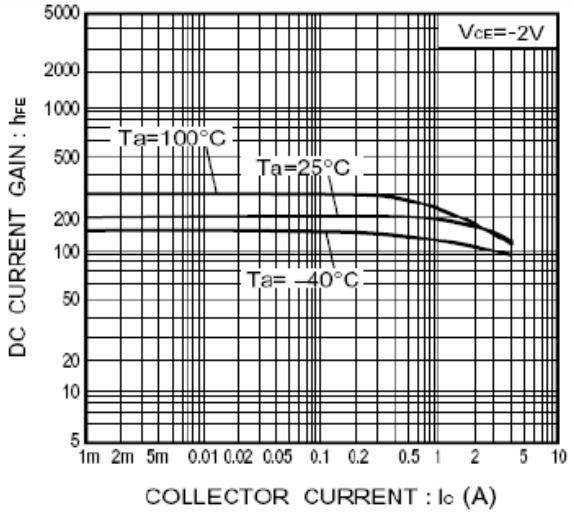



Fig.2 DC current gain vs. collector current

## PNP Silicon Epitaxial Planar Transistor **2SA1797**

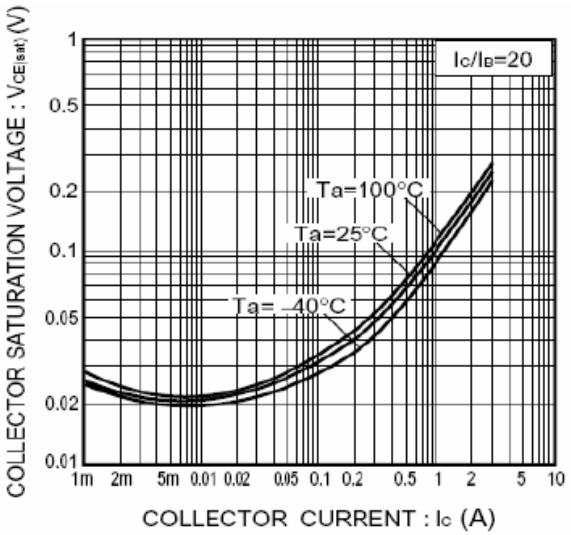



Fig.3 Collector-emitter saturation voltage vs. collector current

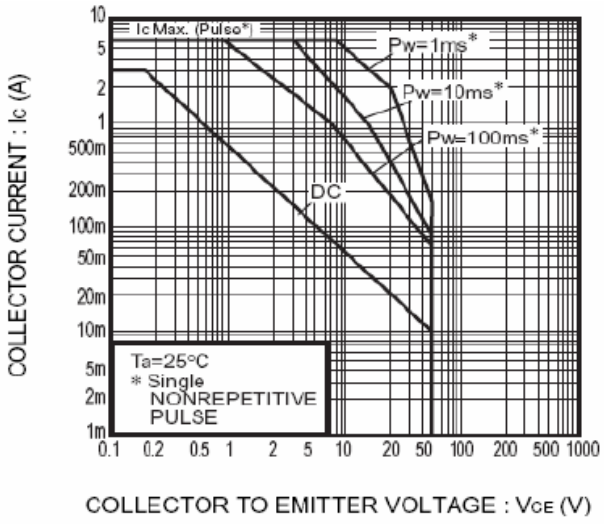
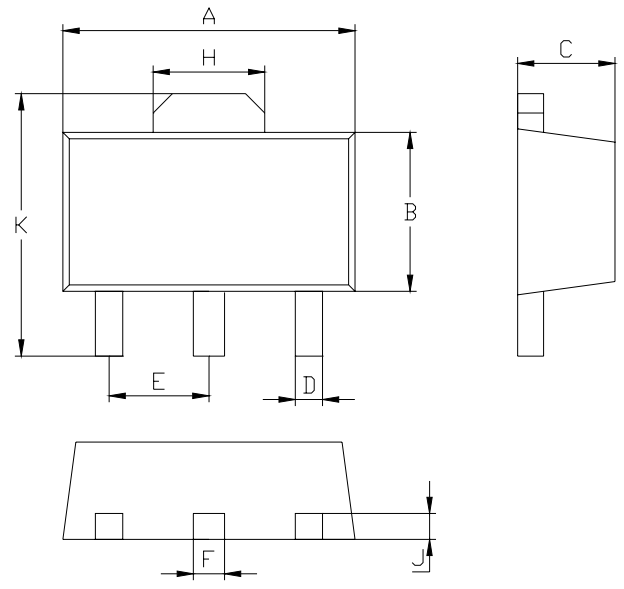



Fig.4 Safe Operating area

## PACKAGE OUTLINE

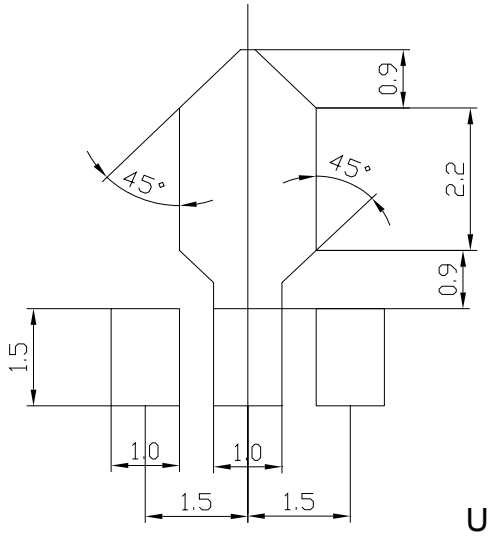
Plastic surface mounted package SOT-89




| SOT-89 | | |
|---|---|---|
| Dim | Min | Max |
| A | 4.5 | 4.7 |
| B | 2.3 | 2.7 |
| C | 1.5Typical | |
| D | 0.35 | 0.55 |
| E | 1.4 | 1.6 |
| F | 0.4 | 0.6 |
| H | 1.55 | 1.75 |
| J | 0.4Typical | |
| K | 4.15 | 4.25 |
| All Dimensions in mm | | |

# PNP Silicon Epitaxial Planar Transistor **2SA1797**

## SOLDERING FOOTPRINT




Unit:mm

## PACKAGE INFORMATION

| Device | Package | Shipping |
|---|---|---|
| 2SA1797 | SOT-89 | 1000/Tape&Reel |