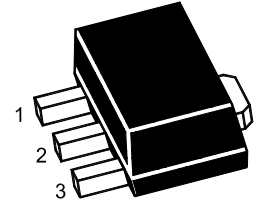


# 2SA1797U

## PNP Silicon Epitaxial Planar Transistor

Medium power transistor



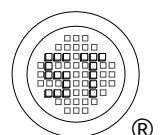
1.Base 2.Collector 3.Emitter  
SOT-89 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

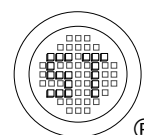
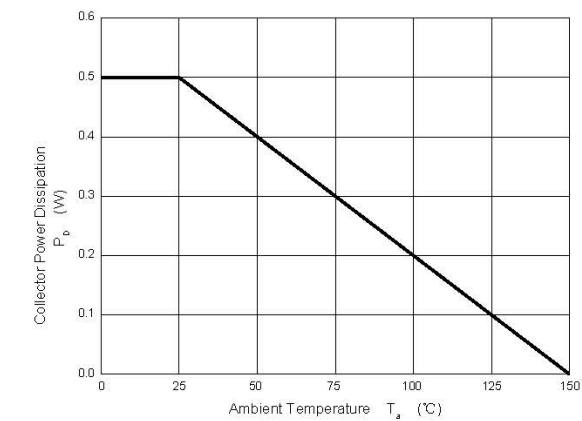
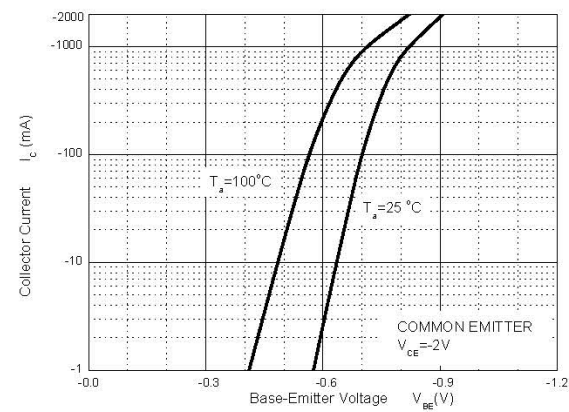
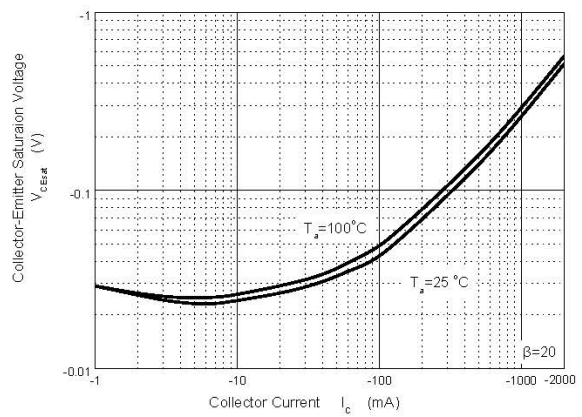
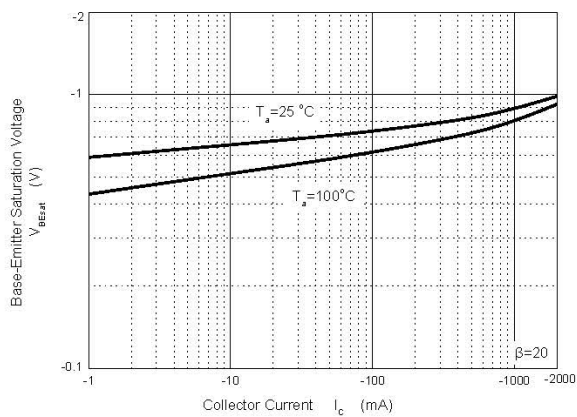
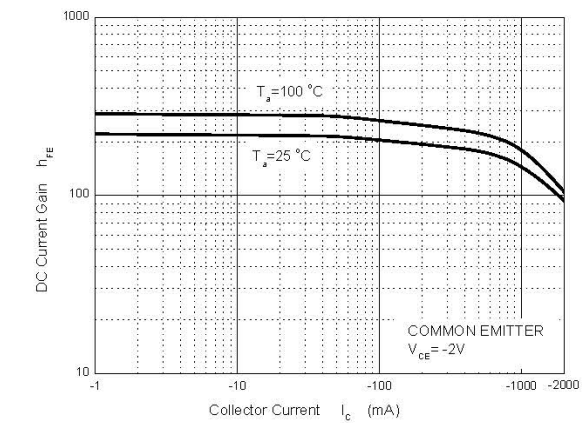
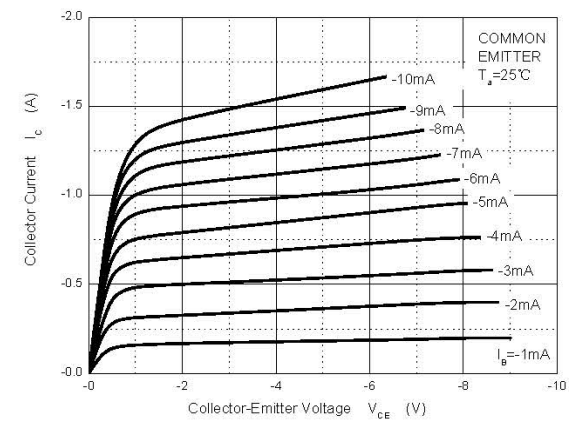
| Parameter                                   | Symbol            | Value         | Unit             |
|---------------------------------------------|-------------------|---------------|------------------|
| Collector Base Voltage                      | $-V_{\text{CBO}}$ | 50            | V                |
| Collector Emitter Voltage                   | $-V_{\text{CEO}}$ | 50            | V                |
| Emitter Base Voltage                        | $-V_{\text{EBO}}$ | 6             | V                |
| Collector Current                           | $-I_{\text{C}}$   | 2             | A                |
| Collector Current ( $P_w = 20 \text{ ms}$ ) | $-I_{\text{CP}}$  | 3             | A                |
| Collector Power Dissipation                 | $P_{\text{C}}$    | 0.5           | W                |
| Junction Temperature                        | $T_{\text{j}}$    | 150           | $^\circ\text{C}$ |
| Storage Temperature Range                   | $T_{\text{stg}}$  | - 55 to + 150 | $^\circ\text{C}$ |

### Characteristics at $T_a = 25^\circ\text{C}$

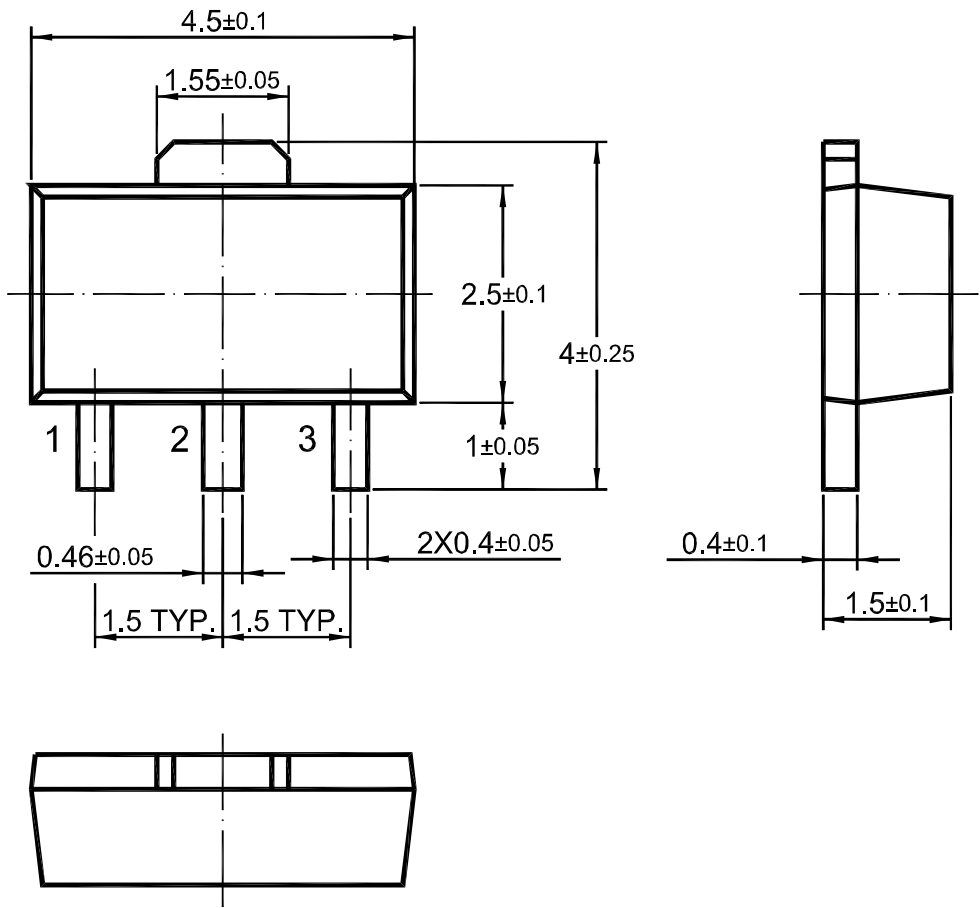
| Parameter                                                                                                            | Symbol                       | Min. | Typ. | Max. | Unit |
|----------------------------------------------------------------------------------------------------------------------|------------------------------|------|------|------|------|
| DC Current Gain<br>at $-V_{\text{CE}} = 2 \text{ V}$ , $-I_{\text{C}} = 500 \text{ mA}$ Current Gain Group           | P                            |      |      |      |      |
|                                                                                                                      | Q                            |      |      |      |      |
|                                                                                                                      | R                            |      |      |      |      |
|                                                                                                                      | $h_{\text{FE}}$              | 82   | -    | 180  | -    |
|                                                                                                                      | $h_{\text{FE}}$              | 120  | -    | 270  | -    |
|                                                                                                                      | $h_{\text{FE}}$              | 180  | -    | 390  | -    |
| Collector Base Cutoff Current<br>at $-V_{\text{CB}} = 50 \text{ V}$                                                  | $-I_{\text{CBO}}$            | -    | -    | 100  | nA   |
| Emitter Base Cutoff Current<br>at $-V_{\text{EB}} = 5 \text{ V}$                                                     | $-I_{\text{EBO}}$            | -    | -    | 100  | nA   |
| Collector Base Breakdown Voltage<br>at $-I_{\text{C}} = 50 \mu\text{A}$                                              | $-V_{(\text{BR})\text{CBO}}$ | 50   | -    | -    | V    |
| Collector Emitter Breakdown Voltage<br>at $-I_{\text{C}} = 1 \text{ mA}$                                             | $-V_{(\text{BR})\text{CEO}}$ | 50   | -    | -    | V    |
| Emitter Base Breakdown Voltage<br>at $-I_{\text{E}} = 50 \mu\text{A}$                                                | $-V_{(\text{BR})\text{EBO}}$ | 6    | -    | -    | V    |
| Collector Emitter Saturation Voltage<br>at $-I_{\text{C}} = 1 \text{ A}$ , $-I_{\text{B}} = 50 \text{ mA}$           | $-V_{\text{CE(sat)}}$        | -    | -    | 0.35 | V    |
| Transition Frequency<br>at $-V_{\text{CE}} = 2 \text{ V}$ , $-I_{\text{C}} = 500 \text{ mA}$ , $f = 100 \text{ MHz}$ | $f_{\text{T}}$               | -    | 200  | -    | MHz  |
| Collector Output Capacitance<br>at $-V_{\text{CB}} = 10 \text{ V}$ , $f = 1 \text{ MHz}$                             | $C_{\text{ob}}$              | -    | 36   | -    | pF   |



2SA1797U



SOT-89 PACKAGE OUTLINE



Dimensions in mm

