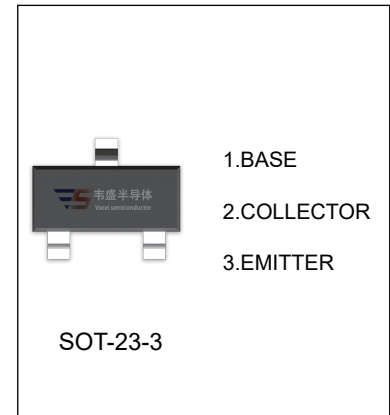


2SB1116 TRANSISTOR (PNP)

FEATURES

- High Collector Power Dissipation



MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------------------------|--|---------|------|
| V _{CB0} | Collector-Base Voltage | -60 | V |
| V _{CEO} | Collector-Emitter Voltage | -50 | V |
| V _{EBO} | Emitter-Base Voltage | -6 | V |
| I _C | Collector Current -Continuous | -1 | A |
| P _C | Collector Power Dissipation | 0.35 | W |
| T _J , T _{stg} | Operation Junction and Storage Temperature Range | -55-150 | °C |

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|--|------|------|------|------|
| Collector-base breakdown voltage | V _{(BR)CBO} | I _C =-100μA, I _E =0 | -60 | | | V |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C =-1mA, I _B =0 | -50 | | | V |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E =-100μA, I _C =0 | -6 | | | V |
| Collector cut-off current | I _{CB0} | V _{CB} =-60V, I _E =0 | | | -0.1 | μA |
| Emitter cut-off current | I _{EBO} | V _{EB} =-6V, I _C =0 | | | -0.1 | μA |
| DC current gain | h _{FE(1)} | V _{CE} =-2V, I _C =-0.1A | 135 | | 600 | |
| | h _{FE(2)} | V _{CE} =-2V, I _C =-1A | 81 | | | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =-1A, I _B =-50mA | | | -0.3 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C =-1A, I _B =-50mA | | | -1.2 | V |
| Base-emitter voltage | V _{BE} | V _{CE} =-2V, I _C =-0.05A | -0.6 | | -0.7 | V |
| Transition frequency | f _T | V _{CE} =-2V, I _C =-0.1A | 70 | | | MHz |
| Collector output capacitance | C _{ob} | V _{CB} =-10V, I _E =0, f=1MHz | | 25 | | pF |
| Turn-on time | t _{on} | V _{CC} =-10V, I _C =-0.1A, I _{B1} =-I _{B2} =-0.01A, V _{BE(Off)} =2to3V | | 0.07 | | us |
| Storage time | t _s | | | 0.7 | | us |
| Fall time | t _f | | | 0.07 | | us |

CLASSIFICATION OF h_{FE(1)}

| Rank | L | K | U |
|-------|---------|---------|---------|
| Range | 135-270 | 200-400 | 300-600 |

Static Characteristic
