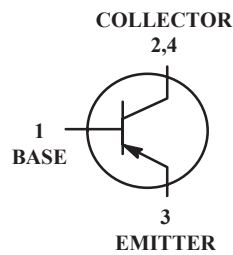
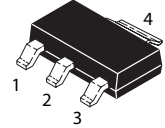


High-Voltage PNP Transistor Surface Mount

 Lead(Pb)-Free



1.BASE
2.COLLECTOR
3.EMITTER
4.COLLECTOR



SOT-223

Maximum Ratings

| Rating | Symbol | Value | Unit |
|-----------------------------------|-----------------------------------|-------------|------------------|
| Collector-Emitter Voltage | V _{CEO} | -400 | V _{dc} |
| Collector-Base Voltage | V _{CBO} | -400 | V _{dc} |
| Emitter-Base Voltage | V _{EBO} | -6.0 | V _{dc} |
| Collector Current-Continuous | I _C | -500 | mA _{dc} |
| Total Device Dissipation | P _D | 2.0 | W |
| Junction and Storage, Temperature | T _J , T _{stg} | -55 to +150 | °C |

Device Marking

PZTA94 = A94

Electrical Characteristics (T_A=25°C Unless Otherwise noted)

| Characteristics | Symbol | Min | Max | Unit |
|-----------------|--------|-----|-----|------|
|-----------------|--------|-----|-----|------|

Off Characteristics

| | | | | |
|--|----------------------|------|------|------------------|
| Collector-Emitter Breakdown Voltage (I _C =-1.0mA _{dc} , I _B =0) | V _{(BR)CEO} | -400 | - | V _{dc} |
| Collector-Base Breakdown Voltage (I _C =-100 μA _{dc} , I _E =0) | V _{(BR)CBO} | -400 | - | V _{dc} |
| Emitter-Base Breakdown Voltage (I _E =-100 μA _{dc} , I _C =0) | V _{(BR)EBO} | -6.0 | - | V _{dc} |
| Collect Cutoff Current (V _{CB} = -400V _{dc} , I _E =0) | I _{CBO} | - | -100 | nA _{dc} |
| Emitte Cutoff Current (V _{EB} =-6V, I _C =0) | I _{EBO} | - | -100 | nA _{dc} |

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted) (Continued)

| Characteristics | Symbol | Min | Max | Unit |
|-----------------|--------|-----|-----|------|
|-----------------|--------|-----|-----|------|

On Characteristics¹

| | | | | |
|---|---------------|----|------|-----|
| DC Current Gain ($I_C = -1.0\text{ mAdc}$, $V_{CE} = -10\text{ Vdc}$) | $H_{FE(1)}$ | 40 | - | - |
| ($I_C = -10\text{ mAdc}$, $V_{CE} = -10\text{ Vdc}$) | $H_{FE(2)}$ | 50 | 300 | - |
| ($I_C = -50\text{ mAdc}$, $V_{CE} = -10\text{ Vdc}$) | $H_{FE(3)}$ | 45 | - | - |
| ($I_C = -100\text{ mAdc}$, $V_{CE} = -10\text{ Vdc}$) | $H_{FE(4)}$ | 40 | - | - |
| Collector-Emitter Saturation Voltage ($I_C = -1.0\text{ mAdc}$, $I_B = -0.1\text{ mAdc}$) | $V_{CE(sat)}$ | - | 0.35 | Vdc |
| ($I_C = -10\text{ mAdc}$, $I_B = -1.0\text{ mAdc}$) | | | 0.50 | |
| ($I_C = -50\text{ mAdc}$, $I_B = -5.0\text{ mAdc}$) | | | 0.75 | |
| Base-Emitter Saturation Voltage ($I_C = -10\text{ mAdc}$, $I_B = -1.0\text{ mAdc}$) | $V_{BE(sat)}$ | - | 0.75 | Vdc |

Note: 1. Pulse Test : Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$.

Characteristics Curve

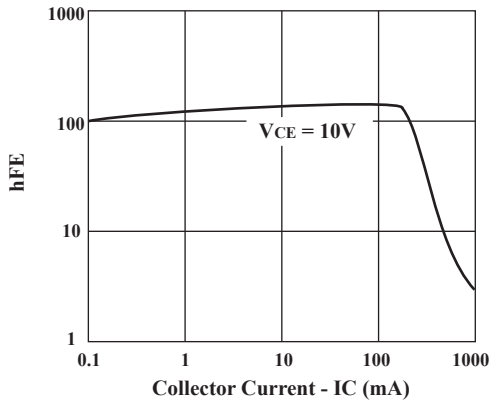


Fig.1 Current Gain & Collector Current

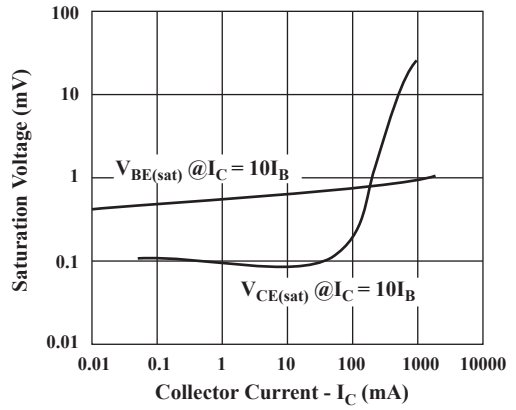


Fig.2 Saturation Voltage & Collector Current

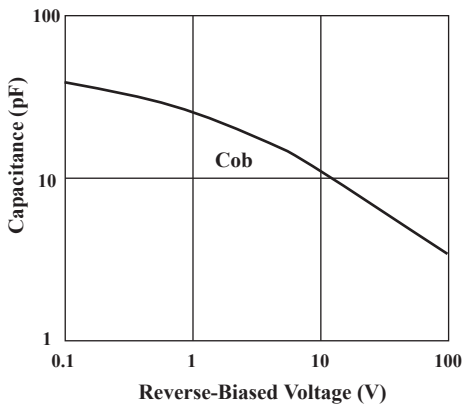
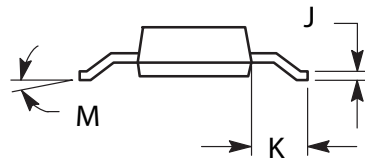
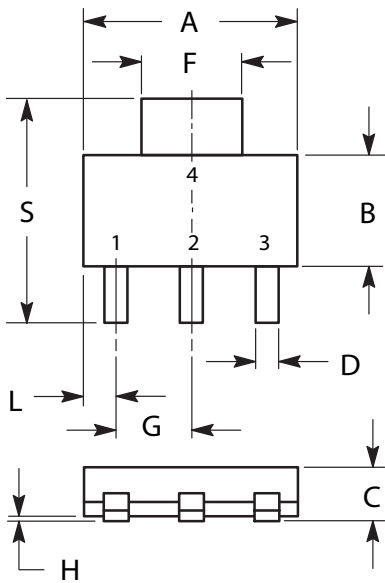


Fig.3 Capacitance & Reverse-Biased Voltage

SOT-223 Outline Dimensions

unit:mm



| DIM | MILLIMETERS | |
|-----|-------------|-------|
| | MIN | MAX |
| A | 6.30 | 6.70 |
| B | 3.30 | 3.70 |
| C | 1.50 | 1.75 |
| D | 0.60 | 0.89 |
| F | 2.90 | 3.20 |
| G | 2.20 | 2.40 |
| H | 0.020 | 0.100 |
| J | 0.24 | 0.35 |
| K | 1.50 | 2.00 |
| L | 0.85 | 1.05 |
| M | 0° | 10° |
| S | 6.70 | 7.30 |