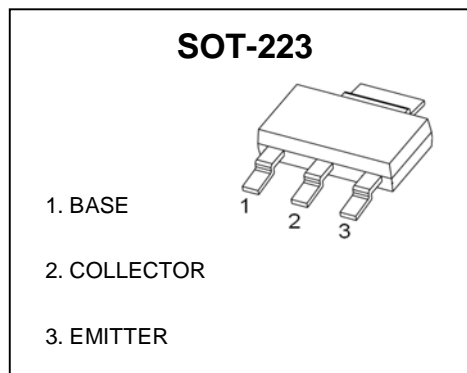


PZTA42 TRANSISTOR (NPN)

FEATURES

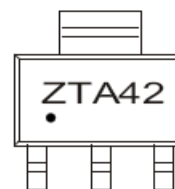
- High breakdown voltage
- Low collector- emitter saturation voltage
- Complementary type: PZTA92(PNP)



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

| Symbol | Parameter | Value | Unit |
|------------------|-------------------------------|---------|------|
| V _{CBO} | Collector-Base Voltage | 300 | V |
| V _{CEO} | Collector-Emitter Voltage | 300 | V |
| V _{EBO} | Emitter-Base Voltage | 6 | V |
| I _C | Collector Current -Continuous | 0.2 | A |
| I _{CM} | Collector Current - Pluse | 0.5 | A |
| P _C | Collector Power Dissipation | 1 | W |
| T _j | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55~150 | °C |

MARKING:



Solid dot = Green molding compound device, if none, the normal device.

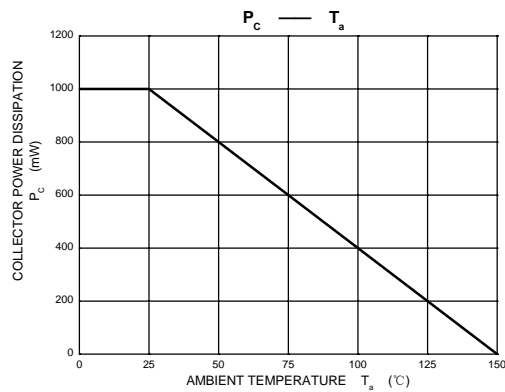
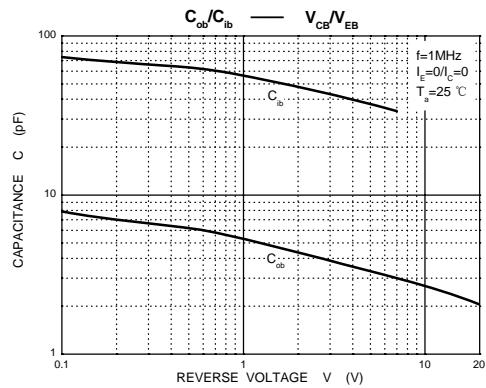
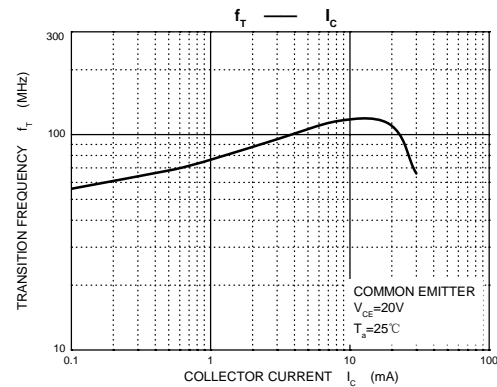
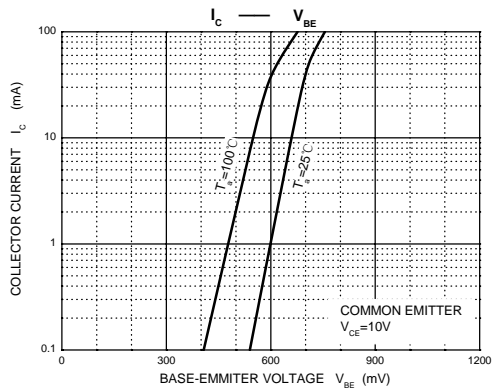
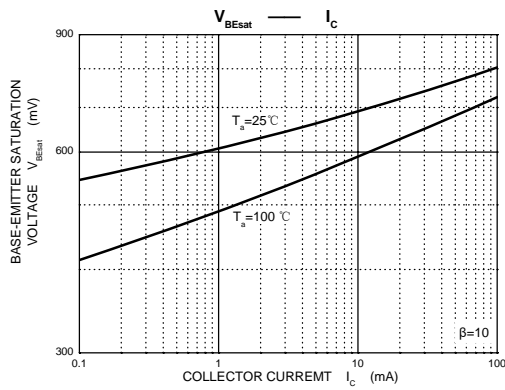
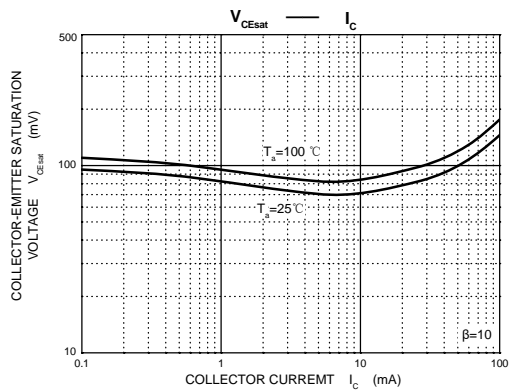
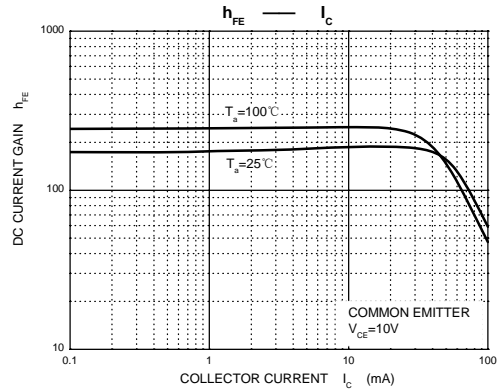
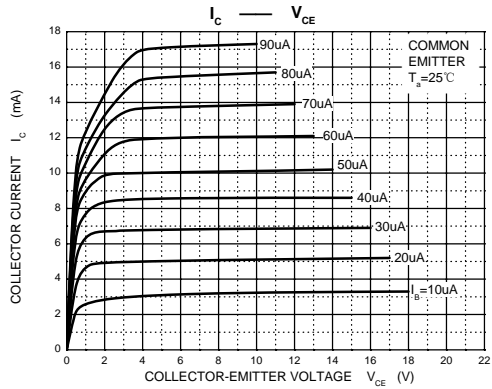
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--|----------------------|--|-----|-----|-----|------|
| Collector - base breakdown voltage | V _{(BR)CBO} | I _C =100μA, I _E =0 | 300 | | | V |
| Collector - emitter breakdown voltage | V _{(BR)CEO} | I _C =1mA, I _B =0 | 300 | | | V |
| Emitter- base breakdown voltage | V _{(BR)EBO} | I _E =100μA, I _C =0 | 6 | | | V |
| Collector cut- off current | I _{CBO} | V _{CB} =200V, 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} =10V, I _C =1mA | 25 | | | |
| | h _{FE(2)} | V _{CE} =10V, I _C =10mA | 40 | | | |
| | h _{FE(3)} | V _{CE} =10V, I _C =30mA | 40 | | | |
| Collector - emitter saturation voltage | V _{CE(sat)} | I _C =20mA, I _B =2mA | | | 0.5 | V |
| Base- emitter saturation voltage | V _{BE(sat)} | I _C =20mA, I _B =2mA | | | 0.9 | V |
| Transition frequency | f _T | V _{CE} =20V, I _C =10mA, f=100MHz | 50 | | | MHz |
| Collector output capacitance | C _{ob} | V _{CB} =20V, I _E =0, f=1MHz | | | 3 | pF |

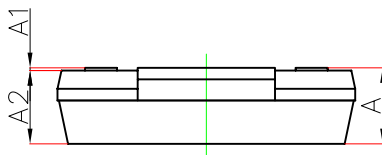
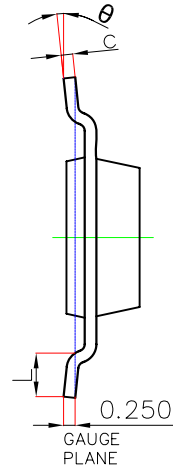
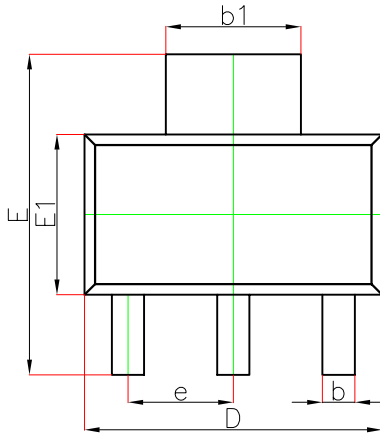


PZTA42

Typical Characteristics

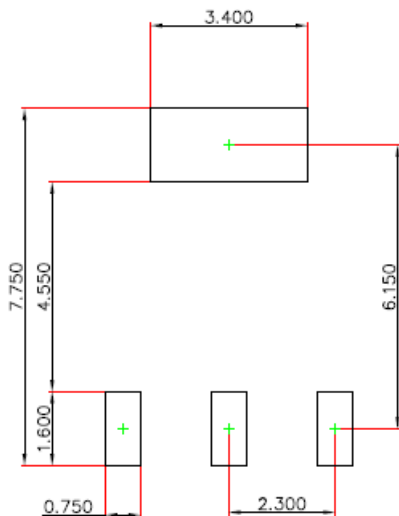


SOT-223 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | — | 1.800 | — | 0.071 |
| A1 | 0.020 | 0.100 | 0.001 | 0.004 |
| A2 | 1.500 | 1.700 | 0.059 | 0.067 |
| b | 0.660 | 0.840 | 0.026 | 0.033 |
| b_1 | 2.900 | 3.100 | 0.114 | 0.122 |
| c | 0.230 | 0.350 | 0.009 | 0.014 |
| D | 6.300 | 6.700 | 0.248 | 0.264 |
| E | 6.700 | 7.300 | 0.264 | 0.287 |
| E1 | 3.300 | 3.700 | 0.130 | 0.146 |
| e | 2.300(BSC) | | 0.091(BSC) | |
| L | 0.750 | — | 0.030 | — |
| θ | 0° | 10° | 0° | 10° |

SOT-223 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.050 mm.
3. The pad layout is for reference purposes only.