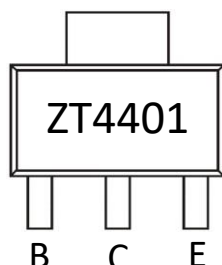


## Features

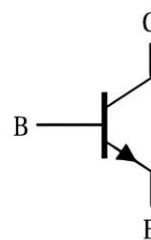
- Low Voltage and High Current
- Complementary to PZT4403
- Linear Amplifier and Switch Applications



Marking and pin assignment



SOT-223 top view



Schematic diagram



Halogen-Free

## Maximum Ratings(Ta=25°C unless otherwise noted)

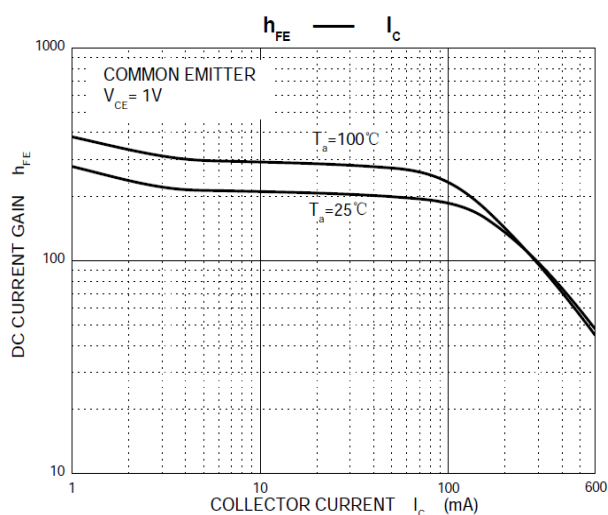
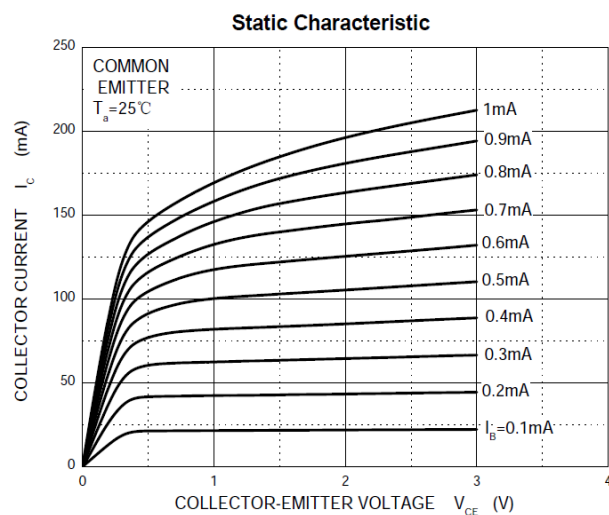
| Symbol          | Parameter                                        | Value    | Unit |
|-----------------|--------------------------------------------------|----------|------|
| $V_{CBO}$       | Collector-Base Voltage                           | 60       | V    |
| $V_{CEO}$       | Collector-Emitter Voltage                        | 40       | V    |
| $V_{EBO}$       | Emitter-Base Voltage                             | 6        | V    |
| $I_C$           | Collector Current -Continuous                    | 600      | mA   |
| $P_C$           | Collector Power Dissipation                      | 1        | W    |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient      | 125      | °C/W |
| $T_j, T_{stg}$  | Operation Junction and Storage Temperature Range | -55~+150 | °C   |

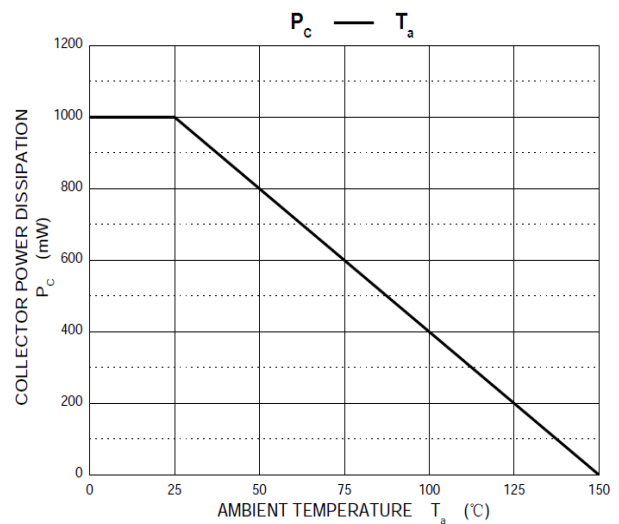
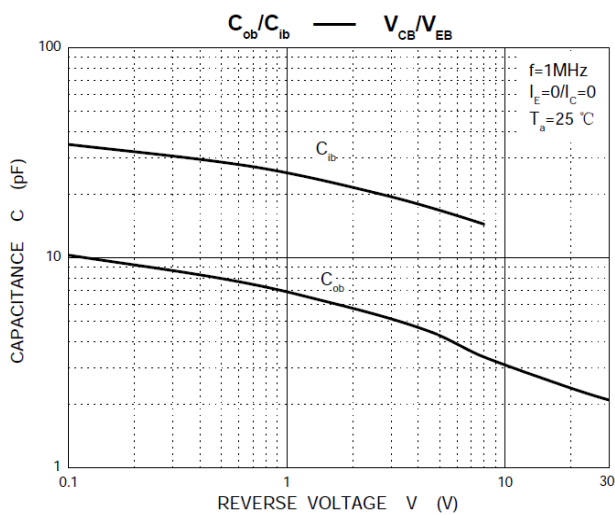
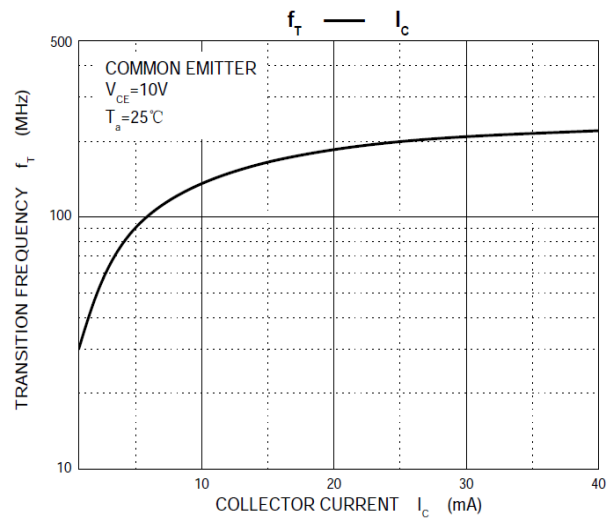
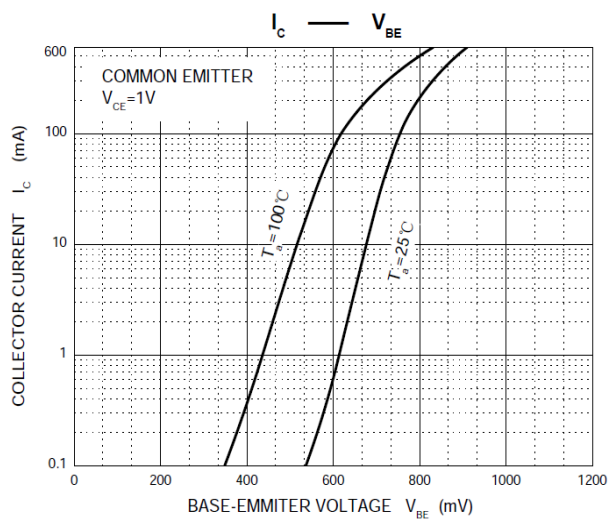
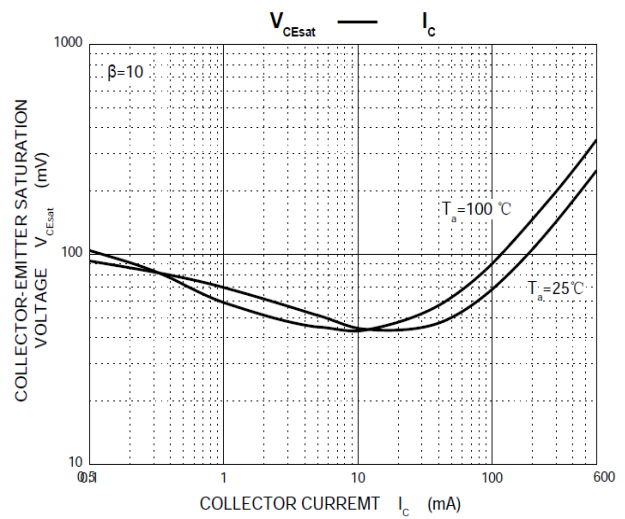
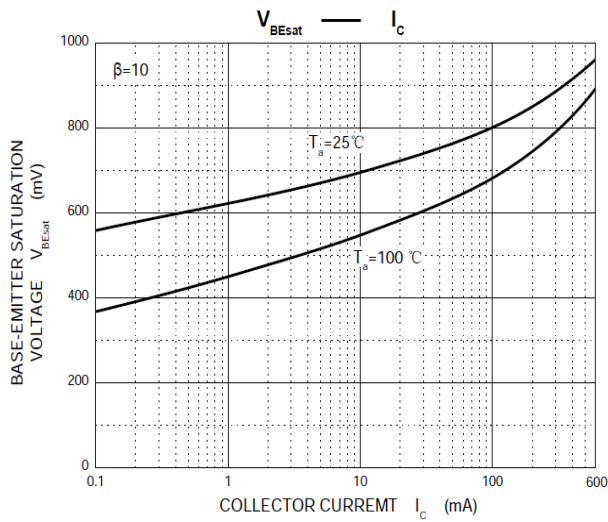
## Ordering Information (Example)

| Type    | Marking | Minimum Package(pcs) | Inner Box Quantity(pcs) | Outer Carton Quantity(pcs) | Delivery Mode |
|---------|---------|----------------------|-------------------------|----------------------------|---------------|
| PZT4401 | ZT4401  | 2,500                | 5,000                   | 35,000                     | 13"reel       |

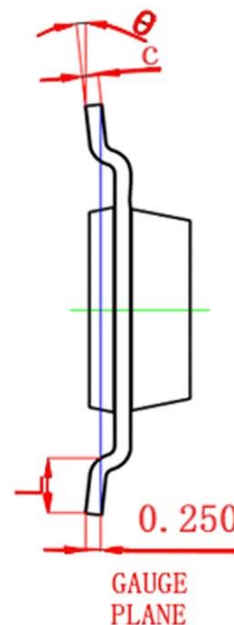
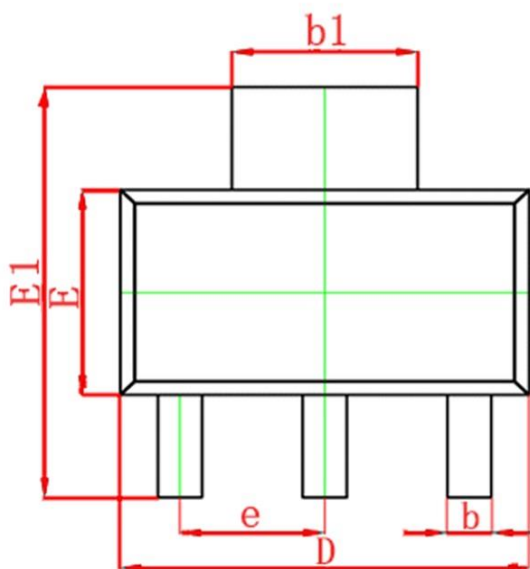
**Electrical Characteristics (T<sub>J</sub>=25°C unless otherwise noted)**

| Symbol               | Parameter                            | Condition                                            | Min | Typ | Max  | Unit |
|----------------------|--------------------------------------|------------------------------------------------------|-----|-----|------|------|
| V <sub>(BR)CBO</sub> | Collector-base breakdown voltage     | I <sub>C</sub> =0.1mA, I <sub>E</sub> =0             | 60  | --  | --   | V    |
| V <sub>(BR)CEO</sub> | Collector-emitter breakdown voltage  | I <sub>C</sub> =1mA, I <sub>B</sub> =0               | 40  | --  | --   | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =0.1mA, I <sub>C</sub> =0             | 6   | --  | --   | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =60V, I <sub>E</sub> =0              | --  | --  | 50   | nA   |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =6V, I <sub>C</sub> =0               | --  | --  | 50   | nA   |
| h <sub>FE1</sub>     | DC current gain                      | V <sub>CE</sub> =1V, I <sub>C</sub> =0.1mA           | 20  | --  | --   | --   |
| h <sub>FE2</sub>     |                                      | V <sub>CE</sub> =1V, I <sub>C</sub> =1mA             | 40  | --  | --   |      |
| h <sub>FE3</sub>     |                                      | V <sub>CE</sub> =1V, I <sub>C</sub> =10mA            | 80  | --  | --   |      |
| h <sub>FE4</sub>     |                                      | V <sub>CE</sub> =1V, I <sub>C</sub> =150mA           | 100 | --  | 300  |      |
| V <sub>CE(sat)</sub> | Collector-emitter saturation voltage | I <sub>C</sub> =150mA, I <sub>B</sub> =15mA          | --  | --  | 0.4  | V    |
|                      |                                      | I <sub>C</sub> =500mA, I <sub>B</sub> =50mA          | --  | --  | 0.75 | V    |
| V <sub>BE(sat)</sub> | Base-emitter saturation voltage      | I <sub>C</sub> =150mA, I <sub>B</sub> =15mA          | --  | --  | 0.95 | V    |
|                      |                                      | I <sub>C</sub> =500mA, I <sub>B</sub> =50mA          | --  | --  | 1.2  | V    |
| f <sub>T</sub>       | Transition frequency                 | V <sub>CE</sub> =10V, I <sub>C</sub> =20mA, f=100MHz | 250 | --  | --   | MHz  |
| C <sub>ib</sub>      | Collector output capacitance         | V <sub>CB</sub> =0.5V, I <sub>C</sub> =0, f=1MHz     | --  | --  | 30   | pF   |
| C <sub>ob</sub>      | Collector output capacitance         | V <sub>CB</sub> =5V, I <sub>E</sub> =0, f=1MHz       | --  | --  | 8    | pF   |

**Typical Characteristics**




SOT-223 Package information



| Symbol   | Dimensions in Millimeters(mm) |       | 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 |
| b1       | 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        | 3.300                         | 3.700 | 0.130                | 0.146 |
| E1       | 6.700                         | 7.300 | 0.264                | 0.287 |
| e        | 2.300(BSC)                    |       | 0.091(BSC)           |       |
| L        | 0.750                         | --    | 0.030                | --    |
| $\theta$ | 0°                            | 10°   | 0°                   | 10°   |