

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- For AF Driver and Output Stages
- High Collector Current
- Low Collector-Emitter Saturation Voltage

## MARKING

ZTA44

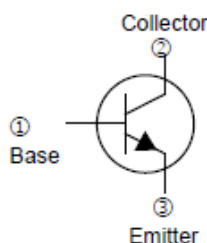
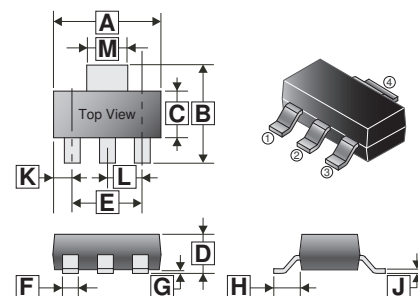
## PACKAGE INFORMATION

| Package | MPQ  | Leader Size |
|---------|------|-------------|
| SOT-223 | 2.5K | 13 inch     |

## ORDER INFORMATION

| Part Number | Type                            |
|-------------|---------------------------------|
| PZTA44-C    | Lead (Pb)-free and Halogen-free |

### SOT-223



| REF. | Millimeter |      | REF. | Millimeter |      |
|------|------------|------|------|------------|------|
|      | Min.       | Max. |      | Min.       | Max. |
| A    | 5.90       | 6.70 | G    | -          | 0.18 |
| B    | 6.70       | 7.30 | H    | 2.00       | REF. |
| C    | 3.30       | 3.80 | J    | 0.20       | 0.40 |
| D    | 1.42       | 1.90 | K    | 1.10       | REF. |
| E    | 4.45       | 4.75 | L    | 2.30       | REF. |
| F    | 0.60       | 0.85 | M    | 2.80       | 3.20 |

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

| Parameter                        | Symbol                            | Ratings      | Unit |
|----------------------------------|-----------------------------------|--------------|------|
| Collector-Base Voltage           | V <sub>CBO</sub>                  | 400          | V    |
| Collector-Emitter Voltage        | V <sub>CEO</sub>                  | 400          | V    |
| Emitter-Base Voltage             | V <sub>EBO</sub>                  | 6            | V    |
| Collector Current-Continuous     | I <sub>C</sub>                    | 200          | mA   |
| Collector Current-Pulsed         | I <sub>CM</sub>                   | 300          | mA   |
| Collector Power Dissipation      | P <sub>C</sub>                    | 1            | W    |
| Junction and Storage Temperature | T <sub>J</sub> , T <sub>STG</sub> | 150, -55~150 | °C   |

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

| Parameter                            | Symbol               | Min. | Max. | Unit | Test Conditions                                      |
|--------------------------------------|----------------------|------|------|------|------------------------------------------------------|
| Collector-Base Breakdown Voltage     | V <sub>(BR)CBO</sub> | 400  | -    | V    | I <sub>C</sub> =0.1mA, I <sub>E</sub> =0             |
| Collector-Emitter Breakdown Voltage  | V <sub>(BR)CEO</sub> | 400  | -    | V    | I <sub>C</sub> =1mA, I <sub>B</sub> =0               |
| Emitter-Base Breakdown Voltage       | V <sub>(BR)EBO</sub> | 6    | -    | V    | I <sub>E</sub> =100μA, I <sub>C</sub> =0             |
| Collector Cut-off Current            | I <sub>CBO</sub>     | -    | 100  | nA   | V <sub>CB</sub> =400V, I <sub>E</sub> =0             |
| Emitter Cut-off Current              | I <sub>EBO</sub>     | -    | 100  | nA   | V <sub>EB</sub> =4V, I <sub>C</sub> =0               |
| DC Current Gain                      | h <sub>FE</sub>      | 40   | -    |      | V <sub>CE</sub> =10V, I <sub>C</sub> =1mA            |
|                                      |                      | 50   | 200  |      | V <sub>CE</sub> =10V, I <sub>C</sub> =10mA           |
|                                      |                      | 45   | -    |      | V <sub>CE</sub> =10V, I <sub>C</sub> =50mA           |
|                                      |                      | 40   | -    |      | V <sub>CE</sub> =10V, I <sub>C</sub> =100mA          |
| Collector-Emitter Saturation Voltage | V <sub>CE(sat)</sub> | -    | 0.4  | V    | I <sub>C</sub> =1mA, I <sub>B</sub> =0.1mA           |
|                                      |                      | -    | 0.5  |      | I <sub>C</sub> =10mA, I <sub>B</sub> =1mA            |
|                                      |                      | -    | 0.75 |      | I <sub>C</sub> =50mA, I <sub>B</sub> =5mA            |
| Base-Emitter Saturation Voltage      | V <sub>BE(sat)</sub> | -    | 0.75 | V    | I <sub>C</sub> =10mA, I <sub>B</sub> =1mA            |
| Transition Frequency                 | f <sub>T</sub>       | 20   | -    | MHz  | V <sub>CE</sub> =10V, I <sub>C</sub> =10mA, f=100MHz |
| Collector Capacitance                | C <sub>C</sub>       | -    | 7    | pF   | V <sub>CB</sub> =20V, I <sub>E</sub> =0, f=1MHz      |
| Emitter Capacitance                  | C <sub>E</sub>       | -    | 130  | pF   | V <sub>CB</sub> =0.5V, I <sub>E</sub> =0, f=1MHz     |

## CHARACTERISTICS CURVE

