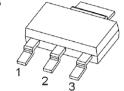


# PZTA14 TRANSISTOR (NPN)

#### **FEATURES**

- High current (max. 500 mA)
- Low voltage (max. 30 V).
- Pre-amplifiers requiring high input impedance.

#### **SOT-223**



- 1. BASE
- 2. COLLECTOR
- 3. EMITTER

### MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

| Symbol                           | Parameter SOT                                    | -223 Value | Unit       |
|----------------------------------|--|------------|------------|
| V <sub>CBO</sub>                 | Collector-Base Voltage                           | 30         | V          |
| V <sub>CEO</sub>                 | Collector-Emitter Voltage                        | 30         | V          |
| V <sub>EBO</sub>                 | Emitter-Base Voltage                             | 10         | V          |
| Ic                               | Collector Current -Continuous                    | 500        | mA         |
| Pc                               | Collector Power Dissipation                      | 1          | W          |
| T <sub>J</sub> ,T <sub>stg</sub> | Operation Junction and Storage Temperature Range | -55~150    | $^{\circ}$ |

## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25 $^{\circ}$ C unless otherwise specified)

| Parameter                            | Symbol               | Test conditions                                   | Min   | Тур | Max | Unit |
|--------------------------------------|----------------------|---|-------|-----|-----|------|
| Collector-base breakdown voltage     | V <sub>(BR)CBO</sub> | Ic=100μA,I <sub>E</sub> =0                        | 30    |     |     | V    |
| Collector-emitter breakdown voltage  | V <sub>CE(SUS)</sub> | Ic=100uA,I <sub>B</sub> =0                        | 30    |     |     | V    |
| Emitter-base breakdown voltage       | V <sub>(BR)EBO</sub> | I <sub>E</sub> =100μA,I <sub>C</sub> =0           | 10    |     |     | V    |
| Collector cut-off current            | I <sub>CBO</sub>     | V <sub>CB</sub> =30V,I <sub>E</sub> =0            |       |     | 0.1 | μA   |
| base cut-off current                 | I <sub>CEO</sub>     | V <sub>EB</sub> =10V,I <sub>C</sub> =0            |       |     | 0.1 | μA   |
| DC augment soin                      | h <sub>FE(1)</sub>   | V <sub>CE</sub> =5.0V,I <sub>C</sub> =10mA        | 10000 |     |     |      |
| DC current gain                      | h <sub>FE(2)</sub>   | V <sub>CE</sub> =5.0V,I <sub>C</sub> =100mA       | 20000 |     |     |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =100mA,I <sub>B</sub> =0.1mA       |       |     | 1.5 | V    |
| Base-emitter voltage                 | V <sub>BE</sub>      | V <sub>CE</sub> =5V,I <sub>c</sub> =100mA         |       |     | 2   | V    |
| Transition frequency                 | f <sub>T</sub>       | V <sub>CE</sub> =5V,I <sub>C</sub> =10mA,f=100MHz | 125   |     |     | MHz  |