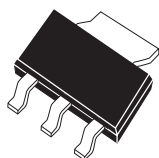


CZT4033

PNP SILICON TRANSISTOR



SOT-223 CASE

**Central**<sup>TM</sup>  
Semiconductor Corp.

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZT4033 type is an PNP silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high current general purpose amplifier applications.

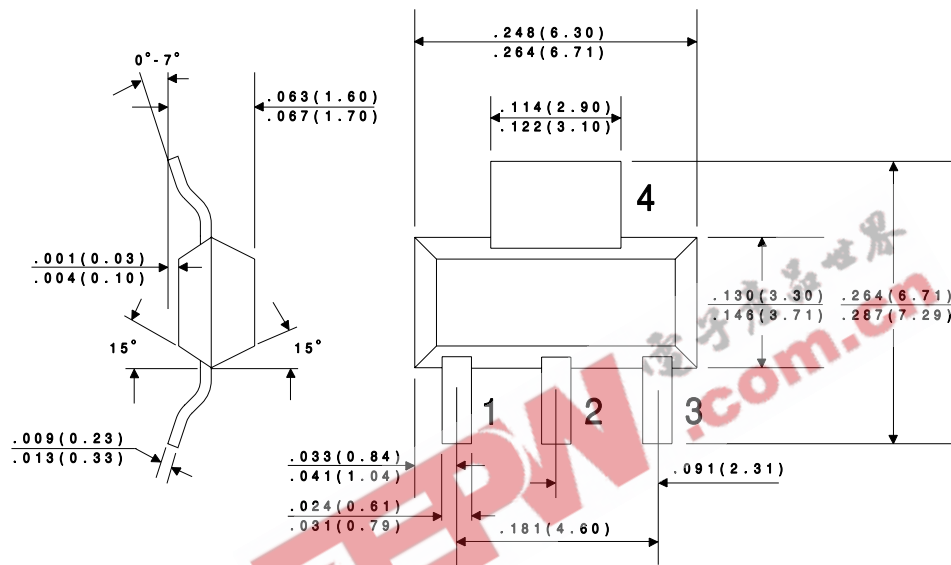
**MAXIMUM RATINGS** ( $T_A=25^{\circ}\text{C}$ )

|                                               | SYMBOL         |             | UNITS                |
|-----------------------------------------------|----------------|-------------|----------------------|
| Collector-Base Voltage                        | $V_{CB0}$      | 80          | V                    |
| Collector-Emitter Voltage                     | $V_{CEO}$      | 80          | V                    |
| Emitter-Base Voltage                          | $V_{EBO}$      | 5.0         | V                    |
| Collector Current                             | $I_C$          | 1.0         | A                    |
| Collector Current (Peak)                      | $I_{CM}$       | 1.5         | A                    |
| Power Dissipation                             | $P_D$          | 2.0         | W                    |
| Operating and Storage<br>Junction Temperature | $T_J, T_{stg}$ | -65 to +150 | $^{\circ}\text{C}$   |
| Thermal Resistance                            | $\theta_{JA}$  | 62.5        | $^{\circ}\text{C/W}$ |

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

| SYMBOL        | TEST CONDITIONS                                       | MIN | MAX  | UNITS |
|---------------|-------------------------------------------------------|-----|------|-------|
| $I_{CBO}$     | $V_{CB}=60\text{V}$                                   |     | 50   | nA    |
| $I_{EBO}$     | $V_{EB}=5.0\text{V}$                                  |     | 10   | nA    |
| $BV_{CBO}$    | $I_C=10\mu\text{A}$                                   | 80  |      | V     |
| $BV_{CEO}$    | $I_C=10\text{mA}$                                     | 80  |      | V     |
| $BV_{EBO}$    | $I_E=10\mu\text{A}$                                   | 5.0 |      | V     |
| $V_{CE(SAT)}$ | $I_C=150\text{mA}, I_B=15\text{mA}$                   |     | 0.15 | V     |
| $V_{CE(SAT)}$ | $I_C=500\text{mA}, I_B=50\text{mA}$                   |     | 0.50 | V     |
| $V_{BE(SAT)}$ | $I_C=150\text{mA}, I_B=15\text{mA}$                   |     | 0.90 | V     |
| $V_{BE(SAT)}$ | $I_C=500\text{mA}, I_B=50\text{mA}$                   |     | 1.10 | V     |
| $h_{FE}$      | $V_{CE}=5.0\text{V}, I_C=0.1\text{mA}$                | 75  |      |       |
| $h_{FE}$      | $V_{CE}=5.0\text{V}, I_C=100\text{mA}$                | 100 | 300  |       |
| $h_{FE}$      | $V_{CE}=5.0\text{V}, I_C=500\text{mA}$                | 70  |      |       |
| $h_{FE}$      | $V_{CE}=5.0\text{V}, I_C=1.0\text{A}$                 | 25  |      |       |
| $f_T$         | $V_{CE}=10\text{V}, I_C=50\text{mA}, f=1.0\text{MHz}$ | 100 |      | MHz   |
| $C_{ob}$      | $V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$           |     | 20   | pF    |
| $C_{ib}$      | $V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$          |     | 110  | pF    |

All dimensions in inches (mm).



LEAD CODE:

- 1) BASE
- 2) COLLECTOR
- 3) EMITTER
- 4) COLLECTOR