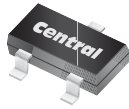


CMPTA44**SURFACE MOUNT
EXTREMELY HIGH VOLTAGE
NPN SILICON TRANSISTOR****SOT-23 CASE**www.centrasemi.com**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPTA44 type is a surface mount epoxy molded silicon planar epitaxial transistor designed for extremely high voltage applications.

MARKING CODE: C3Z**MAXIMUM RATINGS:** ($T_A=25^\circ\text{C}$)

| |
|--|
| Collector-Base Voltage |
| Collector-Emitter Voltage |
| Emitter-Base Voltage |
| Continuous Collector Current |
| Power Dissipation |
| Operating and Storage Junction Temperature |
| Thermal Resistance |

SYMBOL

| | |
|----------------|-------------|
| V_{CBO} | 450 |
| V_{CEO} | 400 |
| V_{EBO} | 6.0 |
| I_C | 300 |
| P_D | 350 |
| T_J, T_{stg} | -65 to +150 |
| θ_{JA} | 357 |

UNITS

| |
|--------------------|
| V |
| V |
| V |
| mA |
| mW |
| $^\circ\text{C}$ |
| $^\circ\text{C/W}$ |

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

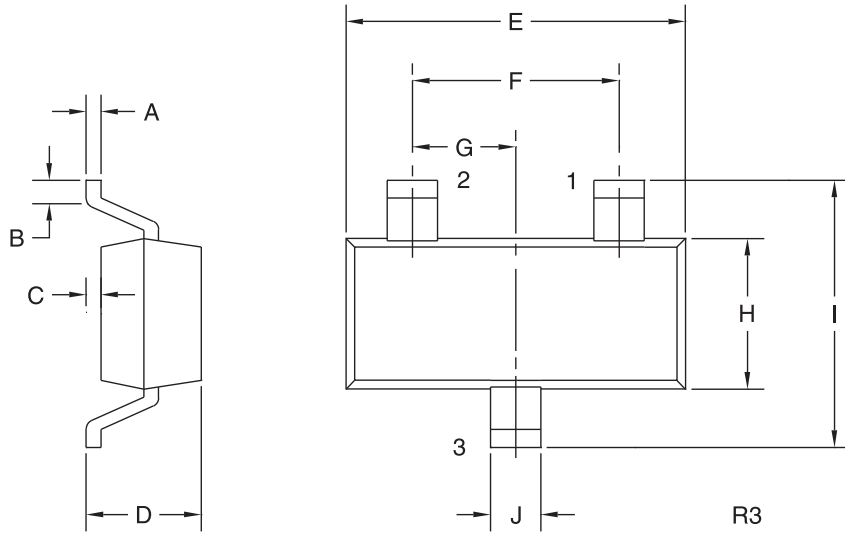
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|---------------|--|-----|------|-------|
| I_{CBO} | $V_{CB}=400\text{V}$ | | 100 | nA |
| I_{CES} | $V_{CE}=400\text{V}$ | | 500 | nA |
| I_{EBO} | $V_{BE}=4.0\text{V}$ | | 100 | nA |
| BV_{CBO} | $I_C=100\mu\text{A}$ | 450 | | V |
| BV_{CES} | $I_C=100\mu\text{A}$ | 450 | | V |
| BV_{CEO} | $I_C=1.0\text{mA}$ | 400 | | V |
| BV_{EBO} | $I_E=10\mu\text{A}$ | 6.0 | | V |
| $V_{CE(SAT)}$ | $I_C=1.0\text{mA}, I_B=0.1\text{mA}$ | | 0.40 | V |
| $V_{CE(SAT)}$ | $I_C=10\text{mA}, I_B=1.0\text{mA}$ | | 0.50 | V |
| $V_{CE(SAT)}$ | $I_C=50\text{mA}, I_B=5.0\text{mA}$ | | 0.75 | V |
| $V_{BE(SAT)}$ | $I_C=10\text{mA}, I_B=1.0\text{mA}$ | | 0.75 | V |
| h_{FE} | $V_{CE}=10\text{V}, I_C=1.0\text{mA}$ | 40 | | |
| h_{FE} | $V_{CE}=10\text{V}, I_C=10\text{mA}$ | 50 | 200 | |
| h_{FE} | $V_{CE}=10\text{V}, I_C=50\text{mA}$ | 45 | | |
| h_{FE} | $V_{CE}=10\text{V}, I_C=100\text{mA}$ | 20 | | |
| f_T | $V_{CE}=10\text{V}, I_C=10\text{mA}, f=10\text{MHz}$ | 20 | | MHz |
| C_{ob} | $V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$ | | 7.0 | pF |
| C_{ib} | $V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$ | | 130 | pF |

R5 (3-February 2010)

CMPTA44
SURFACE MOUNT
EXTREMELY HIGH VOLTAGE
NPN SILICON TRANSISTOR



SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Base
- 2) Emitter
- 3) Collector

MARKING CODE: C3Z

| DIMENSIONS | | | | |
|-------------------|--------|-------|-------------|------|
| SYMBOL | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.003 | 0.007 | 0.08 | 0.18 |
| B | 0.006 | - | 0.15 | - |
| C | - | 0.005 | - | 0.13 |
| D | 0.035 | 0.043 | 0.89 | 1.09 |
| E | 0.110 | 0.120 | 2.80 | 3.05 |
| F | 0.075 | | 1.90 | |
| G | 0.037 | | 0.95 | |
| H | 0.047 | 0.055 | 1.19 | 1.40 |
| I | 0.083 | 0.098 | 2.10 | 2.49 |
| J | 0.014 | 0.020 | 0.35 | 0.50 |

SOT-23 (REV: R3)

R5 (3-February 2010)