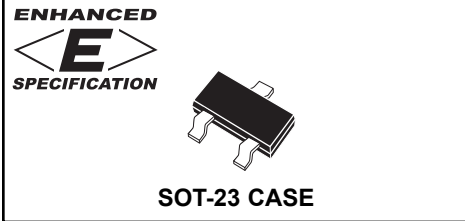


CMPTA42E NPN
CMPTA92E PNP

**ENHANCED SPECIFICATION
SURFACE MOUNT
COMPLEMENTARY
HIGH VOLTAGE SILICON TRANSISTORS**



CentralTM Semiconductor Corp.

DESCRIPTION:

The Central Semiconductor CMPTA42E & CMPTA92E types are Enhanced versions of the CMPTA42 & CMPTA92 complementary surface mount high voltage transistors.

**MARKING CODES: CMPTA42E: C1DE
CMPTA92E: C2DE**

FEATURED ENHANCED SPECIFICATIONS:

- ◆ BV_{CBO} from 300V min to 350V min.
- ◆ BV_{CEO} from 300V min to 350V min.
- ◆ h_{FE} from 25 min to 50 min.

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

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

| SYMBOL | | UNITS |
|----------------|-------------|--------------------|
| V_{CBO} | 350 | V |
| V_{CEO} | 350 | V |
| V_{EBO} | 6.0 | V |
| I_C | 500 | mA |
| P_D | 350 | mW |
| T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Θ_{JA} | 357 | $^\circ\text{C/W}$ |

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

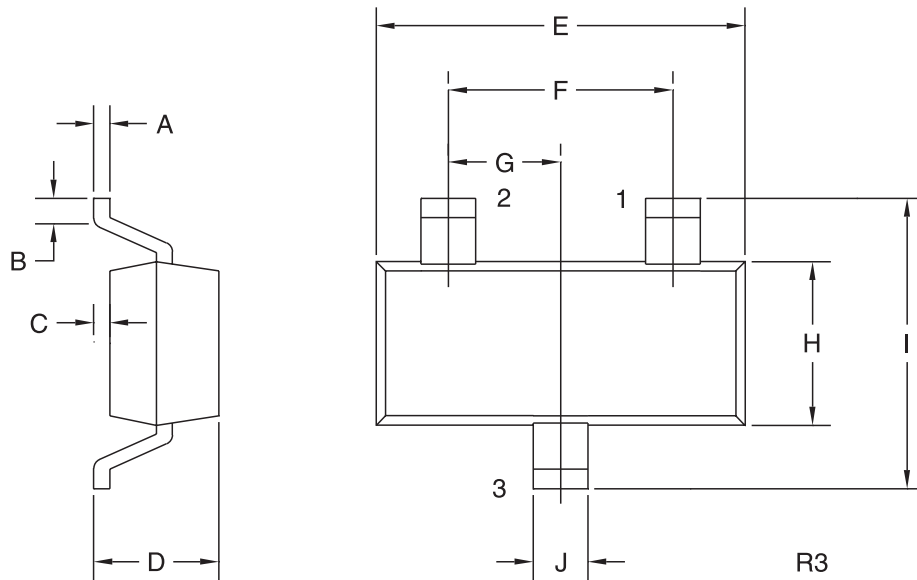
| SYMBOL | TEST CONDITIONS | TYP | | | MAX | UNITS |
|-----------------|---|-----|----------|----------|-----|-------|
| | | MIN | CMPTA42E | CMPTA92E | | |
| I_{CBO} | $V_{CB}=200\text{V}$ | | | | 250 | nA |
| I_{EBO} | $V_{BE}=3.0\text{V}$ | | | | 100 | nA |
| ◆ BV_{CBO} | $I_C=100\mu\text{A}$ | 350 | 590 | 500 | | V |
| ◆ BV_{CEO} | $I_C=1.0\text{mA}$ | 350 | 475 | 450 | | V |
| BV_{EBO} | $I_E=100\mu\text{A}$ | 6.0 | 8.7 | 9.6 | | V |
| ◆ $V_{CE(SAT)}$ | $I_C=50\text{mA}, I_B=5.0\text{mA}$ | | 125 | 150 | 350 | mV |
| | $V_{BE(SAT)}, I_C=20\text{mA}, I_B=2.0\text{mA}$ | | | | 0.9 | V |
| ◆ h_{FE} | $V_{CE}=10\text{V}, I_C=1.0\text{mA}$ | 50 | 110 | 105 | | |
| ◆ h_{FE} | $V_{CE}=10\text{V}, I_C=10\text{mA}$ | 50 | 110 | 105 | | |
| ◆ h_{FE} | $V_{CE}=10\text{V}, I_C=30\text{mA}$ | 50 | 110 | 105 | | |
| f_T | $V_{CE}=20\text{V}, I_C=10\text{mA}, f=100\text{MHz}$ | 50 | 75 | 75 | | MHz |
| C_{ob} | $V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$ | | | | 6.0 | pF |

- ◆ Enhanced specification.

R2 (10-October 2003)

**ENHANCED SPECIFICATION
SURFACE MOUNT
COMPLEMENTARY
HIGH VOLTAGE SILICON
TRANSISTORS**

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE:
CMPTA42E: C1DE
CMPTA92E: C2DE

| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | 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)



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.