**CMPT992**
**CMPT992P**
**CMPT992F**
**CMPT992E**

**SURFACE MOUNT PNP LOW NOISE SILICON TRANSISTOR**




**SOT-23 CASE**

Central Semiconductor Corp.

www.centralsemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPT992 types are PNP silicon low noise transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for low noise amplifier applications where a high $BV_{CEO}$ is required.

**MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE.**

| **MAXIMUM RATINGS:** ($T_A$=25°C) | **SYMBOL** | | **UNITS** |
|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | 110 | V |
| Collector-Emitter Voltage | $V_{CEO}$ | 110 | V |
| Emitter-Base Voltage | $V_{EBO}$ | 5.0 | V |
| Continuous Collector Current | $I_C$ | 50 | mA |
| Power Dissipation | $P_D$ | 350 | mW |
| Operating and Storage Junction Temperature | $T_J$, $T_{stg}$ | -65 to +150 | °C |
| Thermal Resistance | $\Theta_{JA}$ | 357 | °C/W |

**ELECTRICAL CHARACTERISTICS:** ($T_A$=25°C unless otherwise noted)

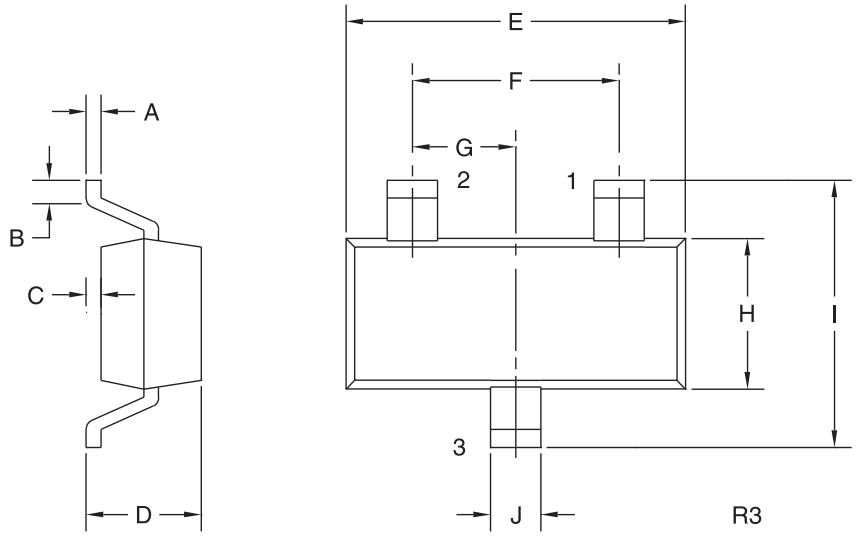
| **SYMBOL** | **TEST CONDITIONS** | **MIN** | **MAX** | **UNITS** |
|---|---|---|---|---|
| $I_{EBO}$ | $V_{EB}$=5.0V | | 30 | nA |
| $BV_{CBO}$ | $I_C$=100μA | 110 | | V |
| $BV_{CEO}$ | $I_C$=1.0mA | 110 | | V |
| $BV_{EBO}$ | $I_E$=10μA | 5.0 | | V |
| $V_{CE(SAT)}$ | $I_C$=10mA, $I_B$=1.0mA | | 0.30 | V |
| $V_{BE(ON)}$ | $V_{CE}$=6.0V, $I_C$=1.0mA | 0.55 | 0.65 | V |
| $f_T$ | $V_{CE}$=6.0V, $I_C$=1.0mA | 50 | | MHz |
| $C_{ob}$ | $V_{CB}$=30V, $I_E$=0, f=1.0MHz | | 3.0 | pF |
| NF | $V_{CE}$=5.0V, $I_C$=100μA, $R_S$=10kΩ, f=10Hz to 15.7KHz | | 3.0 | dB |

| | | **CMPT992** | | **CMPT992P** | | **CMPT992F** | | **CMPT992E** | |
|---|---|---|---|---|---|---|---|---|---|
| | | **MIN** | **MAX** | **MIN** | **MAX** | **MIN** | **MAX** | **MIN** | **MAX** |
| $h_{FE}$ | $V_{CE}$=6.0V, $I_C$=100μA | 150 | - | 150 | - | 150 | - | 150 | - |
| $h_{FE}$ | $V_{CE}$=6.0V, $I_C$=1.0mA | 200 | 800 | 200 | 400 | 300 | 600 | 400 | 800 |

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## SOT-23 CASE - MECHANICAL OUTLINE




**LEAD CODE:**
1) Base
2) Emitter
3) Collector

| DEVICE | MARKING CODE |
|---|---|
| CMPT992 | C992 |
| CMPT992P | C992P |
| CMPT992F | C992F |
| CMPT992E | C992E |

| DIMENSIONS | | | | |
|---|---|---|---|---|
| | INCHES | | MILLIMETERS | |
| SYMBOL | 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)