

CMOD2004

ULTRAmiTM
SURFACE MOUNT HIGH VOLTAGE
SWITCHING DIODE

ULTRAmiTM



SOD-523 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMOD2004 type is a high voltage silicon switching diode manufactured by the epitaxial planar process, epoxy molded in a ULTRAmiTM surface mount package, designed for applications requiring high voltage capability. Marking code is 04.

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

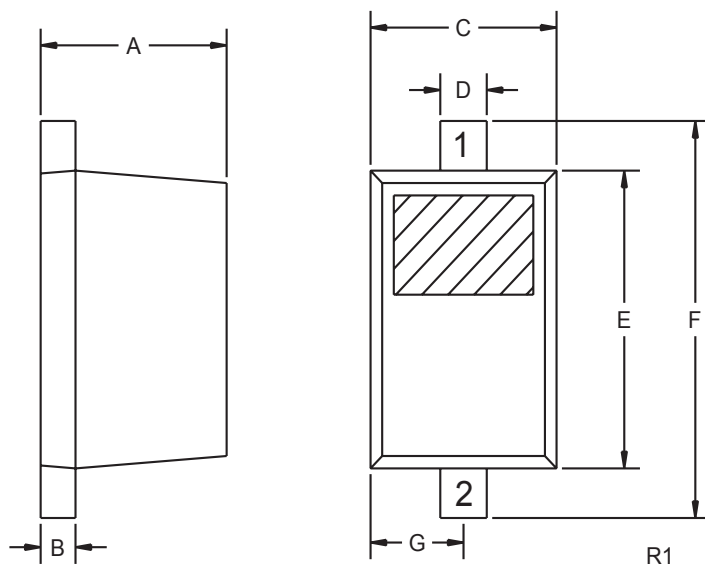
| | SYMBOL | | UNITS |
|---|----------------|-------------|----------------------|
| Continuous Reverse Voltage | V_R | 240 | V |
| Peak Repetitive Reverse Voltage | V_{RRM} | 300 | V |
| Peak Repetitive Reverse Current | I_O | 200 | mA |
| Continuous Forward Current | I_F | 225 | mA |
| Peak Repetitive Forward Current | I_{FRM} | 625 | mA |
| Forward Surge Current, $t_p=1\ \mu\text{s}$ | I_{FSM} | 4000 | mA |
| Forward Surge Current, $t_p=1\ \text{s}$ | I_{FSM} | 1000 | mA |
| Power Dissipation | P_D | 250 | mW |
| Operating and Storage | | | |
| Junction Temperature | T_J, T_{stg} | -65 to +150 | $^{\circ}\text{C}$ |
| Thermal Resistance | Θ_{JA} | 500 | $^{\circ}\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNIT |
|----------|--|-----|-----|---------------|
| BV_R | $I_R=100\ \mu\text{A}$ | 300 | | V |
| I_R | $V_R=240\text{V}$ | | 100 | nA |
| I_R | $V_R=240\text{V}, T_A=150^{\circ}\text{C}$ | | 100 | μA |
| V_F | $I_F=100\text{mA}$ | | 1.0 | V |
| C_T | $V_R=0, f=1\ \text{MHz}$ | | 5.0 | pF |
| t_{rr} | $I_F=I_R=30\text{mA}$, Rec. To 3.0mA, $R_L=100\ \Omega$ | | 50 | ns |

R1 (26-June 2001)

SOD-523 CASE MECHANICAL OUTLINE



Lead Code:

1) Cathode

2) Anode

| DIMENSIONS | | | | |
|------------|--------|-------|-------------|------|
| SYMBOL | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.020 | 0.031 | 0.50 | 0.80 |
| B | 0.004 | 0.008 | 0.10 | 0.20 |
| C | 0.028 | 0.035 | 0.70 | 0.90 |
| D | 0.008 | 0.011 | 0.20 | 0.28 |
| E | 0.039 | 0.055 | 1.00 | 1.40 |
| F | 0.055 | 0.071 | 1.40 | 1.80 |
| G | 0.016 | | 0.40 | |

SOD-523 (REV: R1)

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