

CMLD2004 CMLD2004A  
CMLD2004C CMLD2004S  
CMLD2004DO

**SURFACE MOUNT SILICON  
DUAL, HIGH VOLTAGE  
SWITCHING DIODES**



**SOT-563 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMLD2004 series contains two (2) silicon high voltage switching diodes, manufactured by the epitaxial planar process, epoxy molded in an SOT-563 surface mount package, designed for applications requiring high voltage capability.

The following configurations are available:

|            |                         |                                |
|------------|-------------------------|--------------------------------|
| CMLD2004   | DUAL, ISOLATED          | <b>MARKING CODE: 04D</b>       |
| CMLD2004A  | DUAL, COMMON ANODE      | <b>MARKING CODE: 04A or 4A</b> |
| CMLD2004C  | DUAL, COMMON CATHODE    | <b>MARKING CODE: 04C</b>       |
| CMLD2004S  | DUAL, IN SERIES         | <b>MARKING CODE: 04S</b>       |
| CMLD2004DO | DUAL, ISOLATED OPPOSING | <b>MARKING CODE: 04O</b>       |

**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                   |
| Peak Forward Surge Current, $t_p=1.0\mu\text{s}$ | $I_{FSM}$      | 4.0         | A                    |
| Peak Forward Surge Current, $t_p=1.0\text{s}$    | $I_{FSM}$      | 1.0         | A                    |
| Power Dissipation                                | $P_D$          | 250         | mW                   |
| Operating and Storage Junction Temperature       | $T_J, T_{stg}$ | -65 to +150 | $^{\circ}\text{C}$   |
| Thermal Resistance                               | $\theta_{JA}$  | 500         | $^{\circ}\text{C/W}$ |

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

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

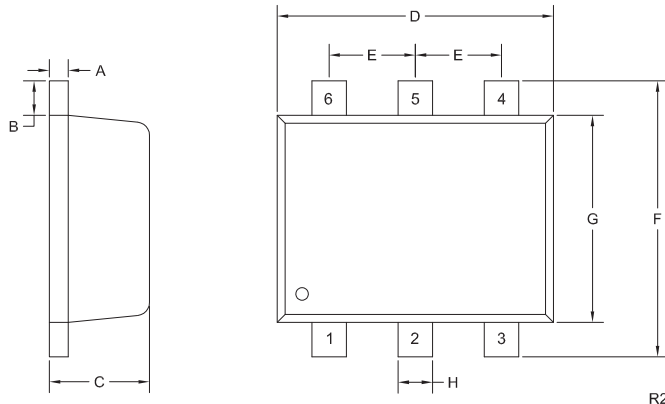
R7 (15-June 2015)

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### SOT-563 CASE - MECHANICAL OUTLINE



| SYMBOL | INCHES |       | MILLIMETERS |      |
|--------|--------|-------|-------------|------|
|        | MIN    | MAX   | MIN         | MAX  |
| A      | 0.0027 | 0.007 | 0.07        | 0.18 |
| B      | 0.008  |       | 0.20        |      |
| C      | 0.017  | 0.024 | 0.45        | 0.60 |
| D      | 0.059  | 0.067 | 1.50        | 1.70 |
| E      | 0.020  |       | 0.50        |      |
| F      | 0.059  | 0.067 | 1.50        | 1.70 |
| G      | 0.043  | 0.051 | 1.10        | 1.30 |
| H      | 0.006  | 0.012 | 0.15        | 0.30 |

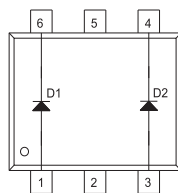
SOT-563 (REV: R2)

### MARKING CODES:

CMLD2004: 04D  
CMLD2004A: 04A or 4A  
CMLD2004C: 04C  
CMLD2004S: 04S  
CMLD2004DO: 04O

### PIN CONFIGURATIONS

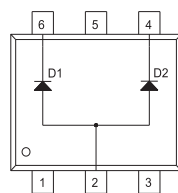
#### CMLD2004



#### LEAD CODE:

- 1) Anode D1
- 2) NC
- 3) Anode D2
- 4) Cathode D2
- 5) NC
- 6) Cathode D1

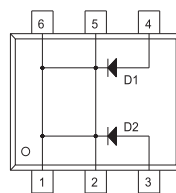
#### CMLD2004A



#### LEAD CODE:

- 1) NC
- 2) Anode D1, D2
- 3) NC
- 4) Cathode D2
- 5) NC
- 6) Cathode D1

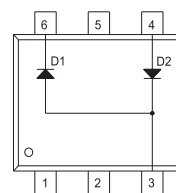
#### CMLD2004C



#### LEAD CODE:

- 1) Cathode D1, D2
- 2) Cathode D1, D2
- 3) Anode D2
- 4) Anode D1
- 5) Cathode D1, D2
- 6) Cathode D1, D2

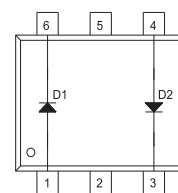
#### CMLD2004S



#### LEAD CODE:

- 1) NC
- 2) NC
- 3) Anode D1, Cathode D2
- 4) Anode D2
- 5) NC
- 6) Cathode D1

#### CMLD2004DO



#### LEAD CODE:

- 1) Anode D1
- 2) NC
- 3) Cathode D2
- 4) Anode D2
- 5) NC
- 6) Cathode D1

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#### **SERVICES**

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- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

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R7 (15-June 2015)

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- Специальные условия для постоянных клиентов.
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- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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