

CMLSH-4
SURFACE MOUNT
DUAL, ISOLATED
SILICON
SCHOTTKY DIODES



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLSH-4 are two individual electrically isolated 40 volt Schottky Diodes, in a space saving SOT-563 surface mount package. This PICOmini™ device has been designed for applications requiring fast switching speeds and a low forward voltage drop.

MARKING CODE: C4E



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

| | | | |
|---|----------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 40 | V |
| Continuous Forward Current | I_F | 200 | mA |
| Peak Repetitive Forward Current | I_{FRM} | 350 | mA |
| Peak Forward Surge Current, $t_p=10\text{ms}$ | I_{FSM} | 750 | 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 | $^\circ\text{C/W}$ |

SYMBOL

UNITS

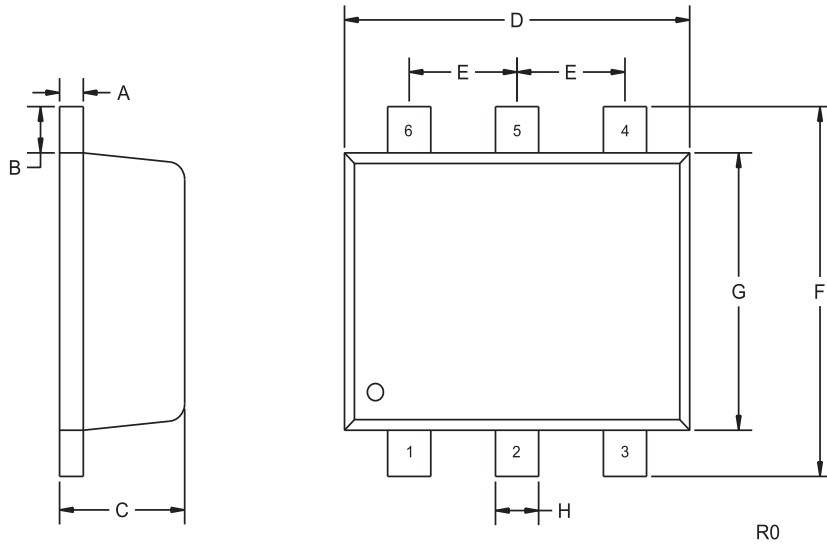
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|----------|---|-----|------|------|---------------|
| I_R | $V_R=25\text{V}$ | | 90 | 500 | nA |
| I_R | $V_R=25\text{V}, T_A=100^\circ\text{C}$ | | 25 | 100 | μA |
| BV_R | $I_R=100\mu\text{A}$ | 40 | 50 | | V |
| V_F | $I_F=2.0\text{mA}$ | | 0.29 | 0.33 | V |
| V_F | $I_F=15\text{mA}$ | | 0.37 | 0.42 | V |
| V_F | $I_F=100\text{mA}$ | | 0.61 | 0.80 | V |
| V_F | $I_F=200\text{mA}$ | | 0.65 | 1.0 | V |
| C_T | $V_R=1.0\text{V}, f=1.0\text{MHz}$ | | 7.0 | | pF |
| t_{rr} | $I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ | | | 5.0 | ns |

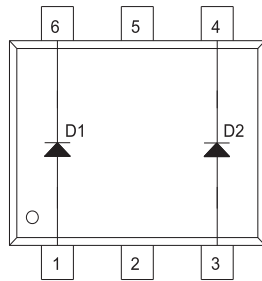
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SOT-563 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.004 | 0.007 | 0.10 | 0.18 |
| B | 0.008 | | 0.20 | |
| C | 0.022 | 0.024 | 0.56 | 0.60 |
| D | 0.059 | 0.067 | 1.50 | 1.70 |
| E | 0.020 | | 0.50 | |
| F | 0.061 | 0.067 | 1.55 | 1.70 |
| G | 0.047 | | 1.20 | |
| H | 0.006 | 0.012 | 0.15 | 0.30 |

SOT-563 (REV: R0)

LEAD CODE:

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

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R1 (20-January 2010)