

CMLSH1-40
CMLSH1-40G*

**SURFACE MOUNT
HIGH CURRENT, LOW V_F
SILICON SCHOTTKY RECTIFIER**

PICOmini™



SOT-563 CASE

* Device is *Halogen Free* by design

Central™
Semiconductor Corp.

www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLSH1-40 is a 40 volt Schottky Rectifier packaged in a space saving SOT-563 surface mount case. This PICOmini™ device has been designed for applications requiring high current and a low forward voltage drop.

**MARKING CODES: CMLSH1-40: C41
CMLSH1-40G*: CG4**

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

Peak Repetitive Reverse Voltage
Continuous Forward Current
Peak Repetitive Forward Current, $t_p \leq 1.0\text{ms}$
Forward Surge Current, $t_p = 8.0\text{ms}$
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

| SYMBOL | | UNITS |
|----------------|-------------|--------------------|
| V_{RRM} | 40 | V |
| I_F | 1.0 | A |
| I_{FRM} | 3.5 | A |
| I_{FSM} | 10 | A |
| P_D | 250 | mW |
| T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| θ_{JA} | 500 | $^\circ\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|----------|--|-----|-----|------|---------------|
| I_R | $V_R=5.0\text{V}$ | | | 10 | μA |
| I_R | $V_R=8.0\text{V}$ | | | 20 | μA |
| I_R | $V_R=15\text{V}$ | | | 50 | μA |
| BV_R | $I_R=100\mu\text{A}$ | 40 | | | V |
| V_F | $I_F=10\text{mA}$ | | | 0.29 | V |
| V_F | $I_F=100\text{mA}$ | | | 0.36 | V |
| V_F | $I_F=500\text{mA}$ | | | 0.45 | V |
| V_F | $I_F=1.0\text{A}$ | | | 0.55 | V |
| C_J | $V_R=4.0\text{V}, f=1.0\text{MHz}$ | | 50 | | pF |
| t_{rr} | $I_F=I_R=500\text{mA}, I_{rr}=50\text{mA}, R_L=50\Omega$ | | 15 | | ns |

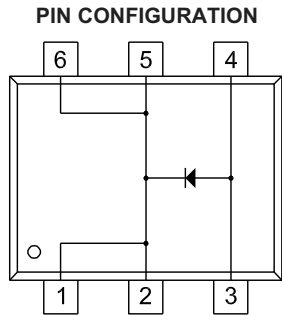
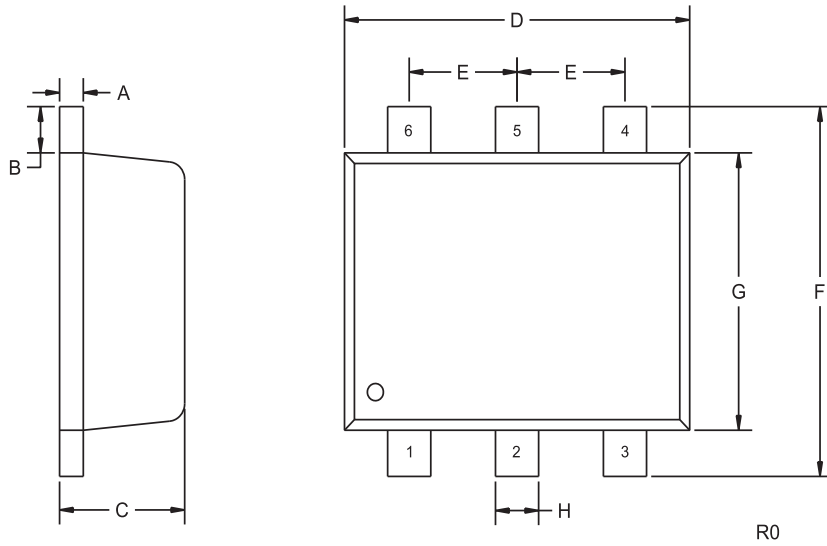
R3 (20-January 2010)

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SOT-563 CASE - MECHANICAL OUTLINE



| 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) Cathode
- 2) Cathode
- 3) Anode
- 4) Anode
- 5) Cathode
- 6) Cathode

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