

CMLSH-4DO
SURFACE MOUNT PICOmini™
DUAL ISOLATED
OPPOSING SILICON
SCHOTTKY DIODES



Central™

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLSH-4DO are two individual electrically isolated 40 volt Schottky Diodes of opposing polarity, 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: L40

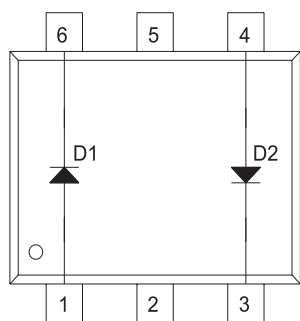
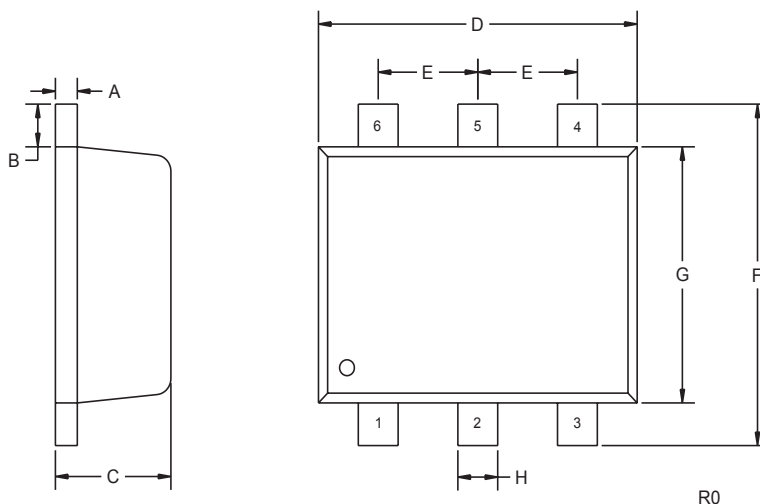
MAXIMUM RATINGS: (T_A=25°C)

| | SYMBOL | | UNITS |
|---------------------------------|-----------------------------------|-------------|-------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 40 | V |
| Continuous Forward Current | I _F | 200 | mA |
| Peak Repetitive Forward Current | I _{FRM} | 350 | mA |
| Forward Surge Current, tp=10ms | I _{FSM} | 750 | mA |
| Power Dissipation | P _D | 250 | mW |
| Operating and Storage | | | |
| Junction Temperature | T _J , T _{stg} | -65 to +150 | °C |
| Thermal Resistance | θ _{JA} | 500 | °C/W |

ELECTRICAL CHARACTERISTICS PER DIODE: (T_A=25°C unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-----------------|--|-----|------|------|-------|
| B _{VR} | I _R =100μA | 40 | 50 | | V |
| V _F | I _F =2.0mA | | 0.29 | 0.33 | V |
| V _F | I _F =15mA | | 0.37 | 0.42 | V |
| V _F | I _F =100mA | | 0.61 | 0.80 | V |
| V _F | I _F =200mA | | 0.65 | 1.0 | V |
| I _R | V _R =25V | | 90 | 500 | nA |
| I _R | V _R =25V, T _A =100°C | | 25 | 100 | μA |
| C _T | V _R =1.0V, f=1.0 MHz | | 7.0 | | pF |
| t _{rr} | I _F =I _R =10mA, I _{rr} =1.0mA, R _L =100Ω | | | 5.0 | ns |

SOT-563 CASE - MECHANICAL OUTLINE



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | 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) CATHODE D2
- 4) ANODE D2
- 5) NC
- 6) CATHODE D1

MARKING CODE: L40