

CMDSH2-4L
SURFACE MOUNT
HIGH CURRENT, LOW V_F
SILICON SCHOTTKY DIODE

SUPERmini™



SOD-323 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMDSH2-4L is a HIGH CURRENT, LOW V_F 40 volt Schottky diode packaged in a space saving SOD-323 surface mount case. This SUPERmini™ device has been designed for small signal general purpose applications when small size and operational efficiency are prime requirements.

MARKING CODE: S2L

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

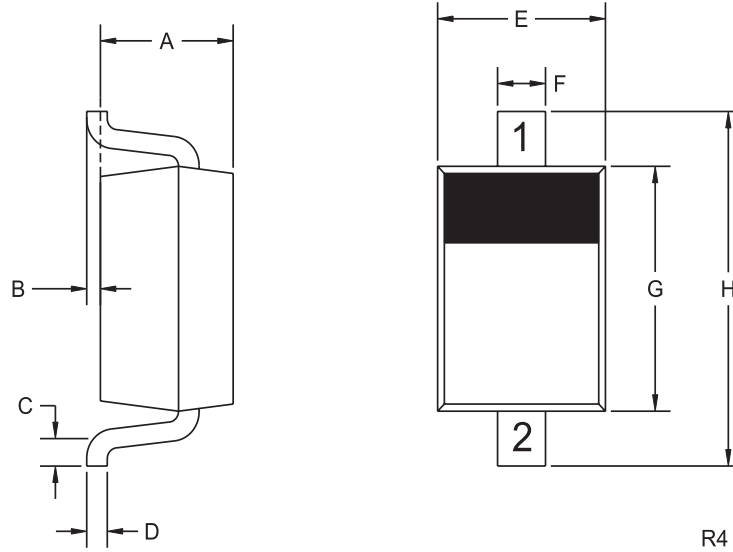
| | SYMBOL | | UNITS |
|---|----------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 40 | V |
| Continuous Forward Current | I_F | 200 | mA |
| Forward Surge Current, $t_p=1.0\text{ms}$ | I_{FSM} | 1.0 | A |
| Power Dissipation | P_D | 250 | mW |
| Operating and Storage | | | |
| Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Thermal Resistance | 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 | $V_R=20\text{V}$ | | 11 | 50 | μA |
| BV_R | $I_R=100\mu\text{A}$ | 40 | 53 | | V |
| V_F | $I_F=10\text{mA}$ | | 0.24 | 0.325 | V |
| V_F | $I_F=100\text{mA}$ | | 0.35 | 0.4 | V |
| V_F | $I_F=200\text{mA}$ | | 0.42 | 0.5 | V |
| C_T | $V_R=4.0\text{V}, f=1.0\text{MHz}$ | | 8.5 | 10 | pF |
| t_{rr} | $I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ | | 4.0 | 5.0 | ns |

R1 (17-September 2004)

SOD-323 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: S2L

| DIMENSIONS | | | | |
|------------|--------|-------|-------------|------|
| SYMBOL | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.031 | 0.039 | 0.80 | 1.00 |
| B | 0.000 | 0.004 | 0.00 | 0.10 |
| C | 0.008 | - | 0.20 | - |
| D | 0.004 | 0.007 | 0.11 | 0.19 |
| E | 0.045 | 0.053 | 1.15 | 1.35 |
| F | - | 0.014 | - | 0.35 |
| G | 0.063 | 0.071 | 1.60 | 1.80 |
| H | 0.094 | 0.102 | 2.40 | 2.60 |

SOD-323 (REV: R4)

R1 (17-September 2004)