



CMLSH2-4LA CMLSH2-4LS  
CMLSH2-4LC CMLSH2-4LSB

**SURFACE MOUNT  
DUAL PAIR, LOW  $V_F$   
SILICON SCHOTTKY DIODES**

**PICOmini™**



**SOT-563 CASE**

# Central™

**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMLSH2-4L Series consists of Dual pairs of Common Anode, Common Cathode, and In-Series Low  $V_F$  Schottky Diodes, manufactured in a PICOmini™ SOT-563 surface mount package.

- Devices are **Halogen Free** by design

**DEVICE CONFIGURATIONS:**

CMLSH2-4LA	DUAL PAIR, COMMON ANODE	<b>MARKING CODE: 4AL</b>
CMLSH2-4LC	DUAL PAIR, COMMON CATHODE	<b>MARKING CODE: 4CL</b>
CMLSH2-4LS	DUAL PAIR, IN SERIES	<b>MARKING CODE: 4SL</b>
CMLSH2-4LSB	DUAL PAIR, IN SERIES	<b>MARKING CODE: 4SB</b>

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

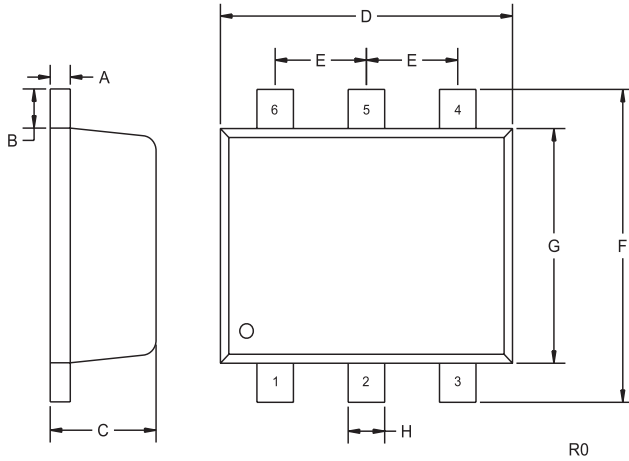
	<b>SYMBOL</b>		<b>UNITS</b>
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Continuous Forward Current	$I_F$	200	mA
Peak Repetitive Forward Current	$I_{FRM}$	300	mA
Forward Surge Current, $t_p=10\text{ms}$	$I_{FSM}$	600	mA
Power Dissipation (Note 1)	$P_D$	350	mW
Power Dissipation (Note 2)	$P_D$	300	mW
Power Dissipation (Note 3)	$P_D$	150	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance (Note 1)	$\Theta_{JA}$	357	$^\circ\text{C/W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNIT</b>
$I_R$	$V_R=30\text{V}$		100	200	nA
$BV_R$	$I_R=100\mu\text{A}$	40	55		V
$V_F$	$I_F=100\mu\text{A}$		0.24	0.26	V
$V_F$	$I_F=500\mu\text{A}$		0.29	0.31	V
$V_F$	$I_F=1.0\text{mA}$		0.31	0.33	V
$V_F$	$I_F=50\text{mA}$		0.54	0.60	V
$V_F$	$I_F=100\text{mA}$		0.67	0.75	V
$C_T$	$V_R=1.0\text{V}, f=1.0\text{MHz}$			10	pF
$t_{rr}$	$I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$			5.0	ns

- Notes: (1) Ceramic or aluminum core PC Board with copper mounting pad area of 4.0 mm<sup>2</sup>  
 (2) FR-4 Epoxy PC Board with copper mounting pad area of 4.0 mm<sup>2</sup>  
 (3) FR-4 Epoxy PC Board with copper mounting pad area of 1.4 mm<sup>2</sup>

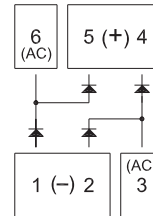
SOT-563 CASE - MECHANICAL OUTLINE



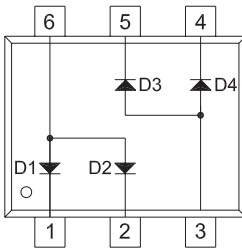
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
A	0.004	0.007	0.10	0.18
B	0.008		0.20	
C	0.022	0.024	0.56	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.061	0.067	1.55	1.70
G	0.047		1.20	
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R0)

SUGGESTED MOUNTING PAD CONFIGURATION  
(FOR CMLSH2-4LSB BRIDGE RECTIFIER)



PIN CONFIGURATIONS

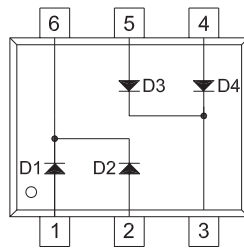


**CMLSH2-4LA**

**LEAD CODE:**

- 1) CATHODE D1
- 2) CATHODE D2
- 3) ANODE D3, D4
- 4) CATHODE D4
- 5) CATHODE D3
- 6) ANODE D1, D2

**MARKING CODE: 4AL**

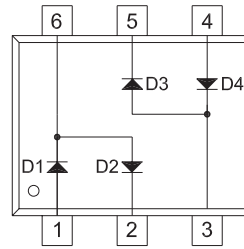


**CMLSH2-4LC**

**LEAD CODE:**

- 1) ANODE D1
- 2) ANODE D2
- 3) CATHODE D3, D4
- 4) ANODE D4
- 5) ANODE D3
- 6) CATHODE D1, D2

**MARKING CODE: 4CL**

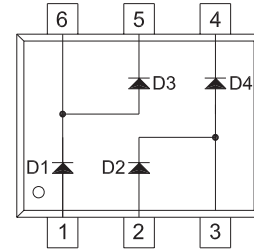


**CMLSH2-4LS**

**LEAD CODE:**

- 1) ANODE D1
- 2) CATHODE D2
- 3) ANODE D3,  
CATHODE D4
- 4) ANODE D4
- 5) CATHODE D3
- 6) CATHODE D1,  
ANODE D2

**MARKING CODE: 4SL**



**CMLSH2-4LSB**

**LEAD CODE:**

- 1) ANODE D1
- 2) ANODE D2
- 3) CATHODE D2,  
ANODE D4
- 4) CATHODE D4
- 5) CATHODE D3
- 6) CATHODE D1,  
ANODE D3

**MARKING CODE: 4SB**

Typical Electrical Characteristics  
Surface Mount  
Dual Pair, Low  $V_F$   
Silicon Schottky Diodes

