

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

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

**PICOmini™**



**SOT-563 CASE**

• Devices are **Halogen Free** by design



[www.centrasemi.com](http://www.centrasemi.com)

**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.

**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
Peak 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>
$I_R$	$V_R=25\text{V}$		100	500	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
$C_J$	$V_R=1.0\text{V}, f=1.0\text{MHz}$			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 4.0mm<sup>2</sup>  
(2) FR-4 Epoxy PC Board with copper mounting pad area of 4.0mm<sup>2</sup>  
(3) FR-4 Epoxy PC Board with copper mounting pad area of 1.4mm<sup>2</sup>

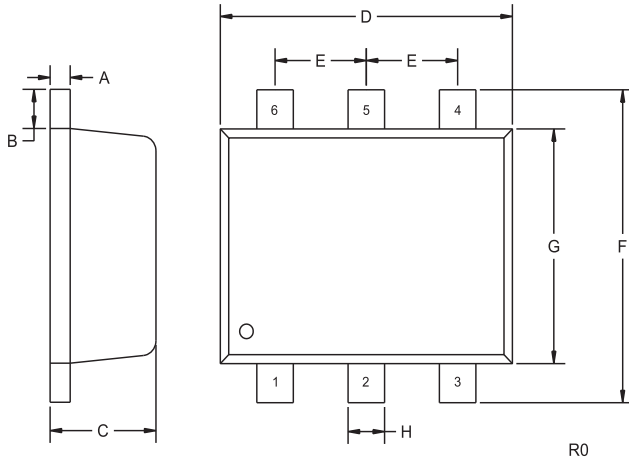
R4 (1-May 2012)

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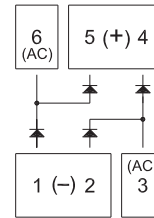
SOT-563 CASE - MECHANICAL OUTLINE



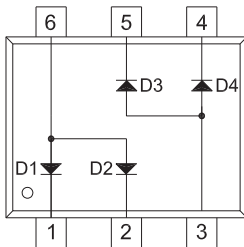
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.007	0.10	0.18
B	0.008		0.20	
C	0.022	0.024	0.56	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.061	0.067	1.55	1.70
G	0.047		1.20	
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R0)

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



PIN CONFIGURATIONS

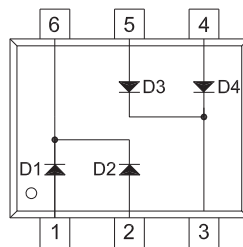


**CMLSH2-4LA**

**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**

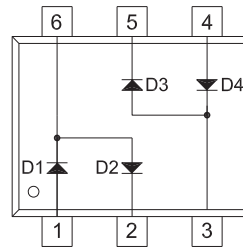


**CMLSH2-4LC**

**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**

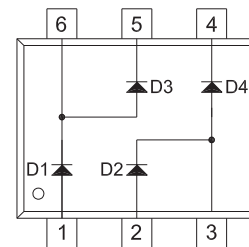


**CMLSH2-4LS**

**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**

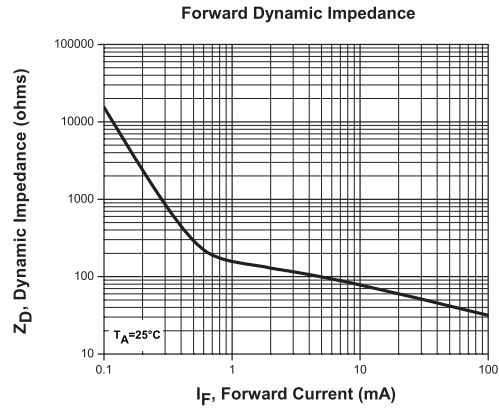
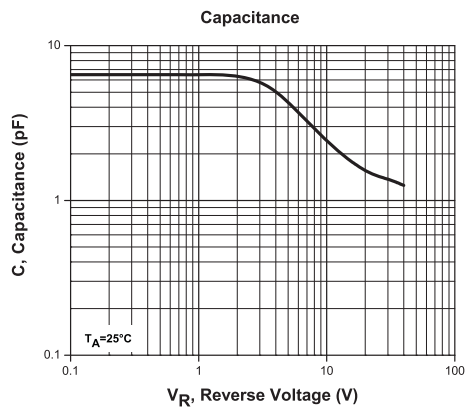
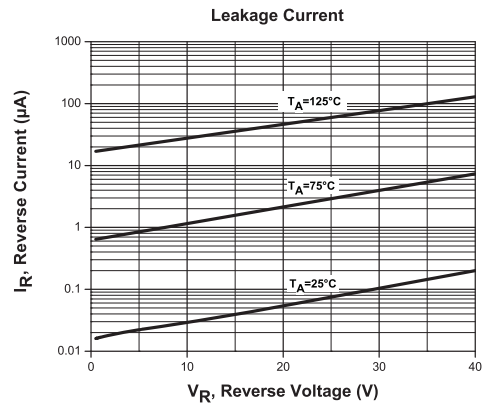
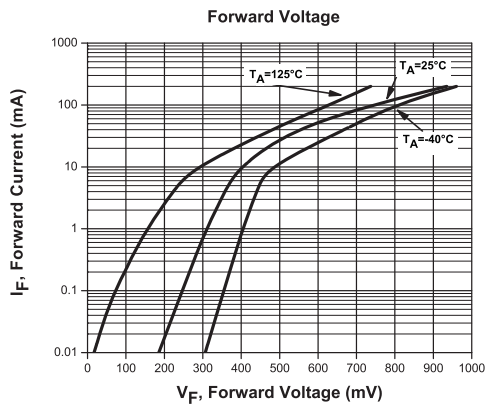
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 DUAL PAIR, LOW  $V_F$   
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TYPICAL ELECTRICAL CHARACTERISTICS



R4 (1-May 2012)