

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

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	MARKING CODE: 4AL
CMLSH2-4LC	DUAL PAIR, COMMON CATHODE	MARKING CODE: 4CL
CMLSH2-4LS	DUAL PAIR, IN SERIES	MARKING CODE: 4SL
CMLSH2-4LSB	DUAL PAIR, IN SERIES	MARKING CODE: 4SB

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
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)	Θ_{JA}	357	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
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 4.0mm²
(2) FR-4 Epoxy PC Board with copper mounting pad area of 4.0mm²
(3) FR-4 Epoxy PC Board with copper mounting pad area of 1.4mm²

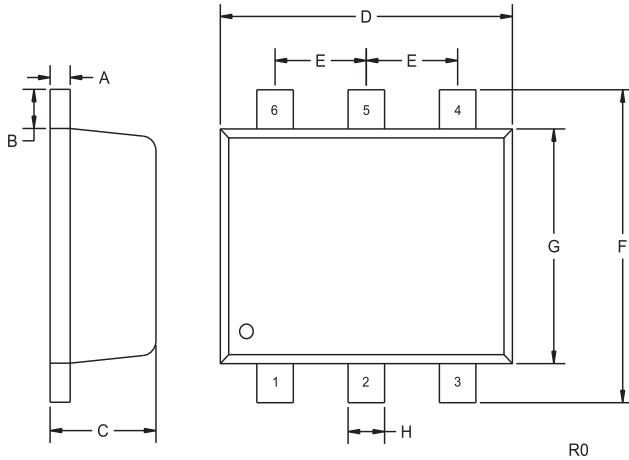
R3 (20-January 2010)

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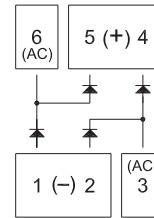
SOT-563 CASE - MECHANICAL OUTLINE



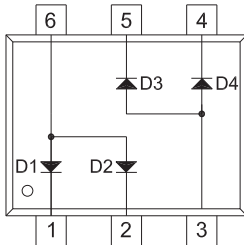
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.007	0.10	0.18
B	0.008		0.20	
C	0.022	0.024	0.56	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.061	0.067	1.55	1.70
G	0.047		1.20	
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R0)

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



PIN CONFIGURATIONS

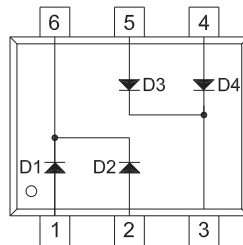


CMLSH2-4LA

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

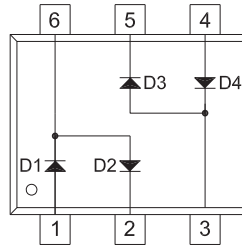


CMLSH2-4LC

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

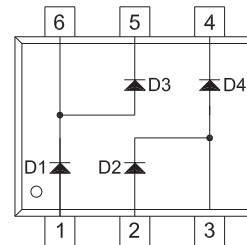


CMLSH2-4LS

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

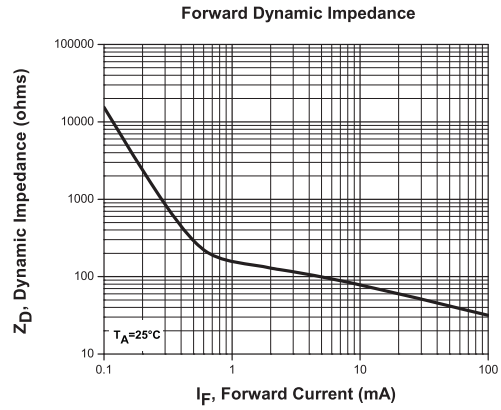
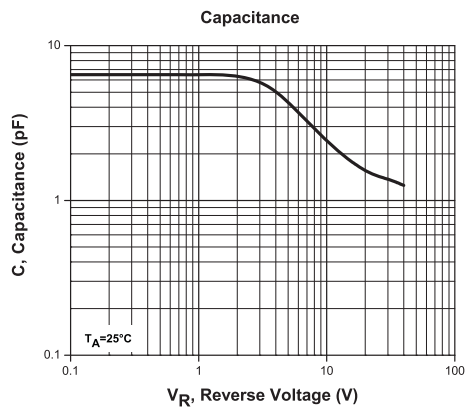
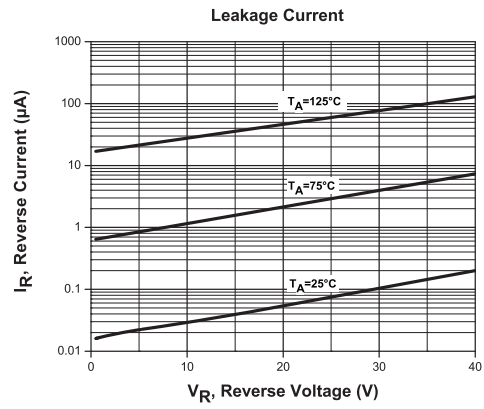
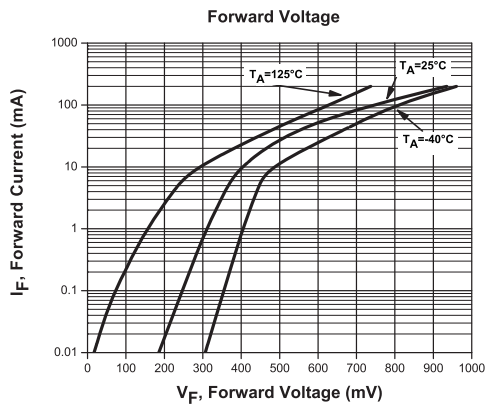
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TYPICAL ELECTRICAL CHARACTERISTICS



R3 (20-January 2010)