

# PRODUCT BRIEF

## CMLSH2-4LC

### Dual Pair, Common Cathode 40V, 200mA Low $V_F$ Schottky Diodes in the SOT-563

SOT-563

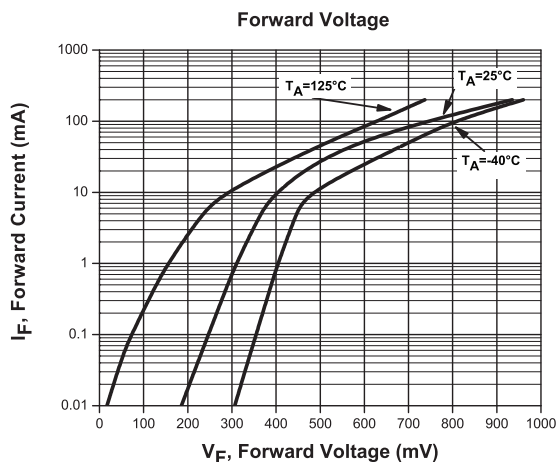


Marking Code: 4CL

The Central Semiconductor CMLSH2-4LC dual pair low  $V_F$  Schottky diodes packaged in the space saving SOT-563 surface mount case consist of two isolated pairs of 40V, 200mA Schottky diodes in a common cathode configuration making it the world's smallest discrete dual diode pair device. The CMLSH2-4LC has a typical low  $V_F$  of 0.24V and a typical switching speed of 3.5ns and is ideal for a wide range of portable battery powered circuit applications and products, including: cell/smart phones, MP3 music players, medical test equipment, bar code scanners, PDAs, and notebook computers.

#### features

- Space saving design
- Low profile package (0.6mm)
- Isolated common cathode pair of Schottky diodes
- RoHS compliant/ Pb Free/ **Halogen Free** by design
- Energy efficient low  $V_F$  and low  $I_R$  diodes



#### applications

- DC-DC conversion
- Switch Mode Power Supply (SMPS)
- Reverse polarity protection
- Low voltage rectification

#### selection guide

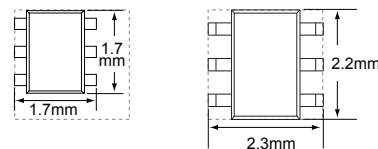
Part No.	Electrical Characteristics Per Diode										Thermal Characteristics			
	$V_{RRM}$	$I_F$	$V_F$		$@ I_F$	$I_R$		$@ V_R$	$t_{rr}$		$C_T$	$P_D$	$T_J, T_{stg}$	$\theta_{JA}$
	(V) MAX	(mA) MAX	(V) TYP	(V) MAX		( $\mu\text{A}$ ) TYP	( $\mu\text{A}$ ) MAX	(V)	(ns) TYP	(ns) MAX	(pF) MAX	(mW)	( $^\circ\text{C}$ ) MAX	( $^\circ\text{C/W}$ ) MAX
CMLSH2-4LC	40	200	0.24 0.29 0.31 0.54 0.67	0.26 0.31 0.33 0.60 0.75	100 $\mu\text{A}$ 500 $\mu\text{A}$ 1.0mA 50mA 100mA	0.1	0.2	30	3.5	5.0	10	350 (Note 1) 300 (Note 2) 150 (Note 3)	-65 to +150	357

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>

#### package comparison

##### surface space

The SOT-563 utilizes **42%** less space than the SOT-363



##### profile

The SOT-563 has a **45%** lower profile than the SOT-363



#### samples and literature

##### samples

To order samples of this device visit:  
[www.centalsemi.com/info/CMLSH2-4LC](http://www.centalsemi.com/info/CMLSH2-4LC)

##### literature

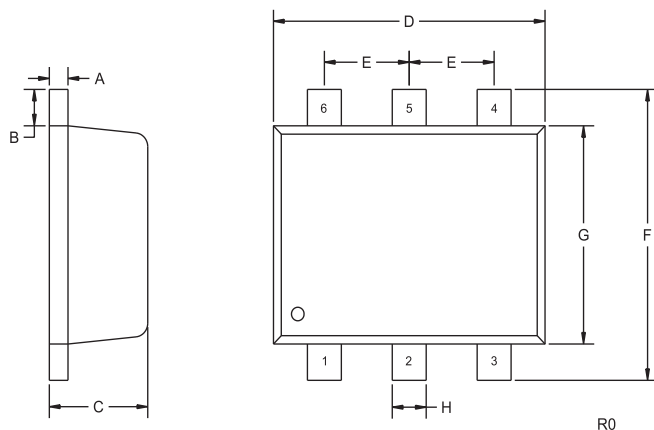


Order your selection guides today visit: [web.centalsemi.com/search/sample.php](http://web.centalsemi.com/search/sample.php)

# CMLSH2-4LC

# Dual Pair, Common Cathode 40V, 200mA Low $V_F$ Schottky Diodes in the SOT-563

## Mechanical Drawing



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.062	0.064	1.57	1.63
B	0.062	0.064	1.57	1.63
C	0.014	0.017	0.36	0.43
D	0.002	0.004	0.04	0.10
E	0.004	0.006	0.10	0.16
F	0.011	0.013	0.27	0.33
G	0.019	0.021	0.47	0.53
H	0.009	0.011	0.22	0.28
J	0.023	0.026	0.59	0.65
K	0.028	0.030	0.71	0.77
L	0.048	0.050	1.22	1.28
M	0.024	0.027	0.62	0.68
N	0.009	0.011	0.22	0.28
P	0.043	0.045	1.09	1.16
R	0.024	0.027	0.62	0.68

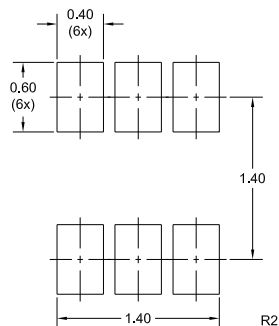
TLM563 (REV:R1)

### LEAD CODE:

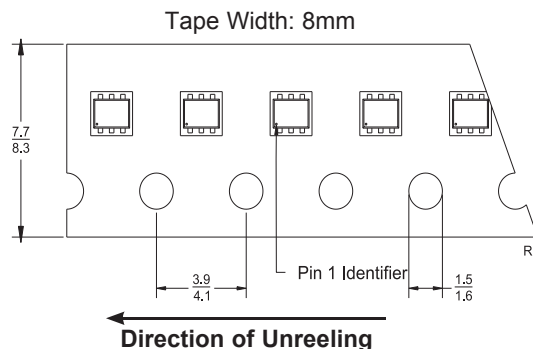
- 1) ANODE D1
- 2) ANODE D2
- 3) CATHODE D3, D4
- 4) ANODE D4
- 5) ANODE D3
- 6) CATHODE D1, D2

### MARKING CODE: 4CL

## Mounting Pad Geometry (Dimensions in mm)



## Tape Dimensions and Orientation (Dimensions in mm)



\* Devices are taped in accordance with Electronic Industries Association Standard EIA-481-1-A

## Packaging Base

- 7" Reel = 3,000 pcs. (add TR suffix to part number)  
Bulk = 5,000 pcs. (add BK suffix to part number)

## Reel Packing Information

Reel Size	Reels per Box (Maximum)	Parts per Box (Maximum)	Box Dimensions		Shipping Weight (Max.)	
			INCH	CM	LB	KG
7"	3	9,000	8x7x2	20x18x5	1	1
	9	27,000	9x9x5	23x23x13	3	2
	18	54,000	9x9x9	23x23x23	6	3
	40	120,000	21x9x9	53x23x23	13	6
	108	324,000	27x9x17	69x23x43	34	16

Sample devices available upon request. To order samples of this device visit: [www.centrasemi.com/info/CMLSH2-4LC](http://www.centrasemi.com/info/CMLSH2-4LC)



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For further information contact:  
Sales at Central Semiconductor Corp.  
(631) 435-1110 or visit our website at:  
[www.centrasemi.com](http://www.centrasemi.com)