# CMLD2004G CMLD2004A CMLD2004C CMLD2004S CMLD2004DO

SURFACE MOUNT SILICON DUAL, HIGH VOLTAGE SWITCHING DIODES



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# **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMLD2004G series contains two (2) silicon high voltage switching diodes, manufactured by the epitaxial planar process, epoxy molded in an SOT-563 surface mount package, designed for applications requiring high voltage capability.



The following configurations are available:

CMLD2004G	DUAL, ISOLATED	MARKING CODE: DG
CMLD2004A	DUAL, COMMON ANODE	MARKING CODE: 04A or 4A
CMLD2004C	DUAL, COMMON CATHODE	MARKING CODE: 04C
CMLD2004S	DUAL, IN SERIES	MARKING CODE: 04S
CMLD2004DO	DUAL, ISOLATED OPPOSING	MARKING CODE: 040

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Continuous Reverse Voltage	$V_{R}$	240	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	300	V
Peak Repetitive Reverse Current	IO	200	mA
Continuous Forward Current	l <sub>F</sub>	225	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	625	mA
Peak Forward Surge Current, tp=1.0µs	I <sub>FSM</sub>	4.0	Α
Peak Forward Surge Current, tp=1.0s	I <sub>FSM</sub>	1.0	Α
Power Dissipation	$P_{D}$	250	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{JA}$	500	°C/W

# **ELECTRICAL CHARACTERISTICS PER DIODE:** (TA=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{R}$	V <sub>R</sub> =240V		100	nA
$I_{R}$	V <sub>R</sub> =240V, T <sub>A</sub> =150°C		100	μΑ
$BV_R$	I <sub>R</sub> =100μA	300		V
VF	I <sub>F</sub> =100mA		1.0	V
CJ	$V_R=0$ , f=1.0MHz		5.0	pF
t <sub>rr</sub>	$I_F = I_R = 30 \text{mA}$ , $I_{rr} = 3.0 \text{mA}$ , $R_L = 100 \Omega$		50	ns

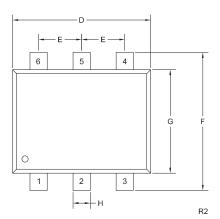
CMLD2004G CMLD2004A CMLD2004C CMLD2004S CMLD2004DO

SURFACE MOUNT SILICON **DUAL, HIGH VOLTAGE SWITCHING DIODES** 



# **SOT-563 CASE - MECHANICAL OUTLINE**





DIMENSIONS				
	INCHES		MILLIM	ETERS
SYMBOL	MIN	MAX	MIN	MAX
Α	0.0027	0.007	0.07	0.18
В	0.008		0.20	
С	0.017	0.024	0.45	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.059	0.067	1.50	1.70
G	0.043	0.051	1.10	1.30
Н	0.006	0.012	0.15	0.30

SOT-563 (REV: R2)

# **MARKING CODES:**

CMLD2004G: DG CMLD2004A: 04A or 4A CMLD2004C: 04C CMLD2004S: **04S** CMLD2004DO: 040

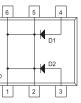
# **PIN CONFIGURATIONS**

# CMLD2004G

# CMLD2004A

# 2

# CMLD2004C



- 3) Anode D2 4) Cathode D2 5) NC

2

LEAD CODE:

1) Anode D1

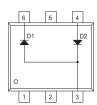
2) NC

6) Cathode D1

# LEAD CODE:

- 1) NC 2) Anode D1, D2
- 3) NC
- 4) Cathode D2
- 5) NC
- 6) Cathode D1
- LEAD CODE:
- 1) Cathode D1, D2
- 2) Cathode D1, D2
- 3) Anode D2
- 4) Anode D1
- 5) Cathode D1, D2
- 6) Cathode D1, D2

# **CMLD2004S**



**LEAD CODE:** 

3) Anode D1,

4) Anode D2

Cathode D2

1) NC

2) NC

5) NC 6) Cathode D1



CMLD2004DO

# LEAD CODE:

- 1) Anode D1
- 2) NC
- 3) Cathode D2
- 4) Anode D2
- 5) NC
- 6) Cathode D1

R8 (21-March 2016)

# **OUTSTANDING SUPPORT AND SUPERIOR SERVICES**



## PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- · Inventory bonding
- · Consolidated shipping options

- · Custom bar coding for shipments
- · Custom product packing

## **DESIGNER SUPPORT/SERVICES**

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free guick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- · Custom electrical curves
- · Environmental regulation compliance
- · Customer specific screening
- · Up-screening capabilities

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits
- Custom product and package development

# REQUESTING PRODUCT PLATING

- 1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
- 2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

# **CONTACT US**

# Corporate Headquarters & Customer Support Team

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**Worldwide Distributors:** 

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# Product End of Life Notification

PDN ID:	PDN01063 Rev:001
Notification Date:	3/03/17
Last Buy Date:	N/A
Last Shipment Date	N/A

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. We are unable to accept any further orders for these products **unless** we have available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

CCC785 REV 002



# Product End of Life Notification

PDN ID:	PDN01063 Rev:001
Notification Date:	3/03/17
Last Buy Date:	N/A
Last Shipment Date	N/A

Summary: All devices manufactured in the SOT-563 package, using the Option 2 Lead Frame, are discontinued and now classified as End of Life (EOL). Rev001 issued to include BK devices previously excluded in error.

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

Central Part Number	Replacement
CMLD2004G BK	N/A
CMLD2004G TR	N/A
CMLD4448 BK	N/A
CMLD4448 TR	N/A
CMLD6001 BK	N/A
CMLD6001 TR	N/A
CMLD6263 BK	N/A
CMLD6263 TR	N/A
CMLD6263S BK	N/A
CMLD6263S TR	N/A
CMLSH-4 BK	N/A
CMLSH-4 TR	N/A
CMLZDA3V3 BK	N/A
CMLZDA3V3 TR	N/A
CMLZDA6V2 BK	N/A
CMLZDA6V2 TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

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CCC785 REV 002

# **Mouser Electronics**

**Authorized Distributor** 

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CMLD2004DO TR CMLD2004C TR CMLD2004S TR