#### SURFACE MOUNT SILICON DUAL, ISOLATED OPPOSING SCHOTTKY DIODE





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# DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLSH-4DO are two individual electrically isolated 40 volt Schottky diodes of opposing polarity, in a space saving SOT-563 surface mount package. This device has been designed for applications requiring fast switching speeds and a low forward voltage drop.

## MARKING CODE: L40

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Continuous Forward Current	١ <sub>F</sub>	200	mA
Peak Repetitive Forward Current	IFRM	350	mA
Peak Forward Surge Current, tp=10ms	IFSM	750	mA
Power Dissipation	Ρ <sub>D</sub>	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:** (T<sub>A</sub>=25°C unless otherwise noted)

symbol I <sub>R</sub>	TEST CONDITIONS V <sub>R</sub> =25V	MIN	<b>TYP</b> 90	<b>MAX</b> 500	UNITS nA
IR	V <sub>R</sub> =25V, T <sub>A</sub> =100°C		25	100	μA
BVR	I <sub>R</sub> =100μΑ	40	50		V
V <sub>F</sub>	I <sub>F</sub> =2.0mA		0.29	0.33	V
VF	I <sub>F</sub> =15mA		0.37	0.42	V
VF	IF=100mA		0.51	0.80	V
V <sub>F</sub>	I <sub>F</sub> =200mA		0.65	1.0	V
CJ	V <sub>R</sub> =1.0V, f=1.0MHz		7.0		pF
t <sub>rr</sub>	$I_F = I_R = 10 \text{mA}, I_{rr} = 1.0 \text{mA}, R_L = 100 \Omega$			5.0	ns

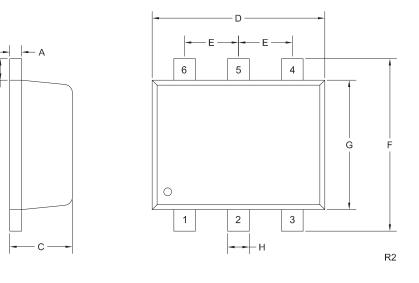
R6 (16-February 2016)

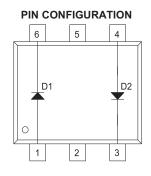


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## SOT-563 CASE - MECHANICAL OUTLINE





DIMENSIONS						
	INCHES		MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
A	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		
H	0.006	0.012	0.15	0.30		
SOT-563 (REV: R2)						

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

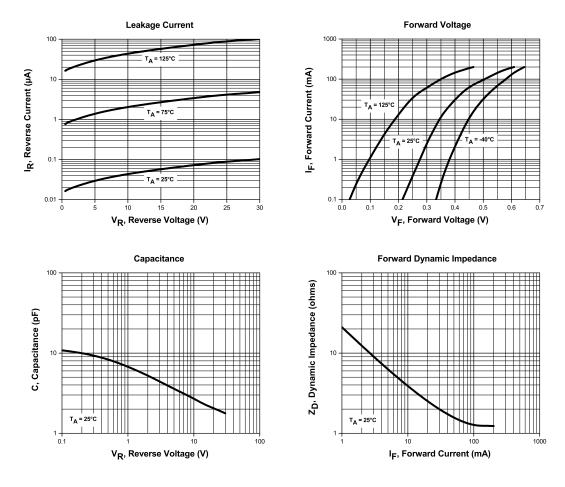
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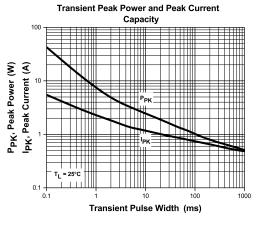
## TYPICAL ELECTRICAL CHARACTERISTICS

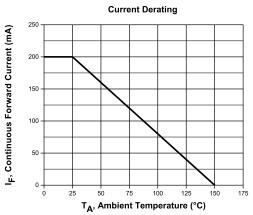
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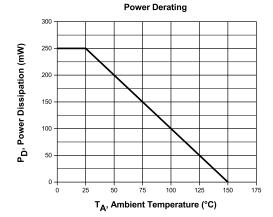


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# TYPICAL ELECTRICAL CHARACTERISTICS



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# **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

#### **DESIGNER SUPPORT/SERVICES**

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

- Free quick 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

ss your design challenges.

· Custom product packing

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

Custom bar coding for shipments

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

## CONTACT US

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