

CMUSH2-4  
 CMUSH2-4A  
 CMUSH2-4C  
 CMUSH2-4S

**SURFACE MOUNT SILICON  
 SCHOTTKY DIODES**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMUSH2-4 series devices are silicon Schottky diodes, epoxy molded in a SOT-523 surface mount package, designed for fast switching applications requiring a low forward voltage drop.



**SOT-523 CASE**

**CMUSH2-4:** SINGLE  
**CMUSH2-4A:** DUAL, COMMON ANODE  
**CMUSH2-4C:** DUAL, COMMON CATHODE  
**CMUSH2-4S:** DUAL, IN SERIES

**MARKING CODE: C42**  
**MARKING CODE: C4A**  
**MARKING CODE: C4C**  
**MARKING CODE: C4S**

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Continuous Forward Current	I <sub>F</sub>	200	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	300	mA
Peak Forward Surge Current, tp=10ms	I <sub>FSM</sub>	600	mA
Power Dissipation	P <sub>D</sub>	250	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	500	°C/W

**ELECTRICAL CHARACTERISTICS PER DIODE: (T<sub>A</sub>=25°C unless otherwise noted)**

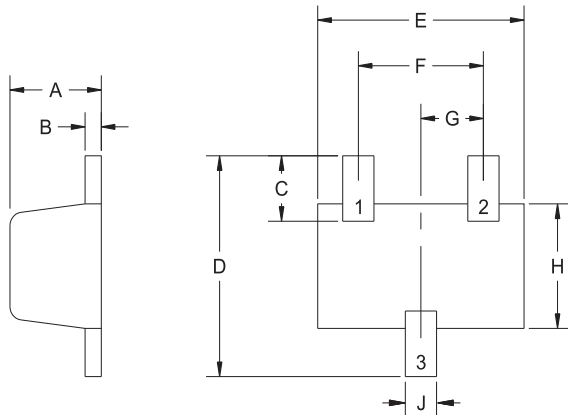
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =25V		80	500	nA
I <sub>R</sub>	V <sub>R</sub> =25V, T <sub>A</sub> =100°C		25	100	µA
BV <sub>R</sub>	I <sub>R</sub> =100µA	40	55		V
V <sub>F</sub>	I <sub>F</sub> =100µA		240	260	mV
V <sub>F</sub>	I <sub>F</sub> =500µA		285	310	mV
V <sub>F</sub>	I <sub>F</sub> =1.0mA		305	330	mV
V <sub>F</sub>	I <sub>F</sub> =50mA		535	600	mV
V <sub>F</sub>	I <sub>F</sub> =100mA		670	750	mV
C <sub>J</sub>	V <sub>R</sub> =1.0V, f=1.0MHz			10	pF
t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =1.0mA, R <sub>L</sub> =100Ω			5.0	ns

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**SOT-523 CASE - MECHANICAL OUTLINE**



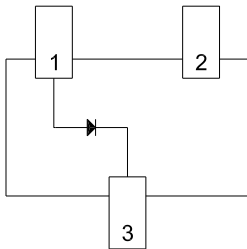
(Bottom View)

R2

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.023	0.031	0.58	0.78
B	0.002	0.008	0.04	0.20
C	0.013	0.021	0.34	0.54
D	0.059	0.067	1.50	1.70
E	0.059	0.067	1.50	1.70
F	0.035	0.043	0.90	1.10
G	0.020		0.50	
H	0.031	0.039	0.78	0.98
J	0.010	0.014	0.25	0.35

SOT-523 (REV: R2)

**PIN CONFIGURATIONS**

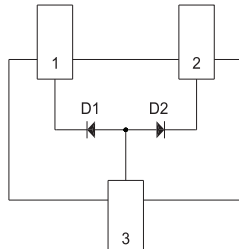


**CMUSH2-4**

**LEAD CODE:**

- 1) Anode
- 2) No Connection
- 3) Cathode

**MARKING CODE: C42**

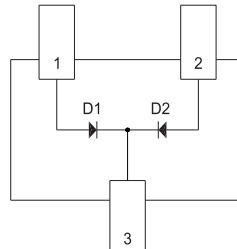


**CMUSH2-4A**

**LEAD CODE:**

- 1) Cathode D1
- 2) Cathode D2
- 3) Anode D1, D2

**MARKING CODE: C4A**

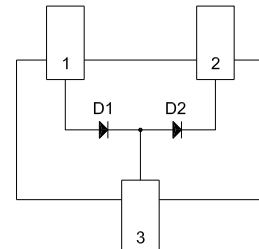


**CMUSH2-4C**

**LEAD CODE:**

- 1) Anode D1
- 2) Anode D2
- 3) Cathode D1, D2

**MARKING CODE: C4C**



**CMUSH2-4S**

**LEAD CODE:**

- 1) Anode D1
- 2) Cathode D2
- 3) Anode D2, Cathode D1

**MARKING CODE: C4S**

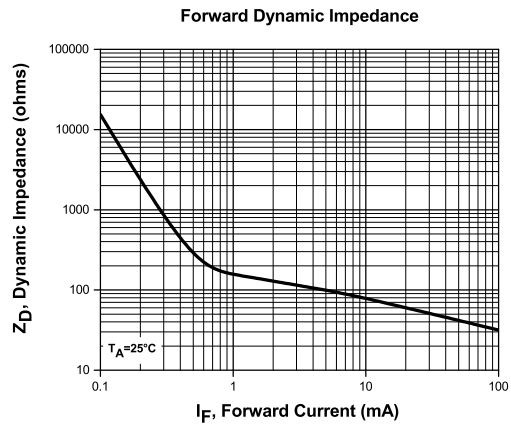
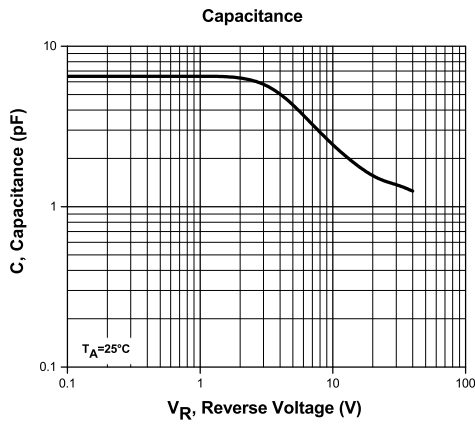
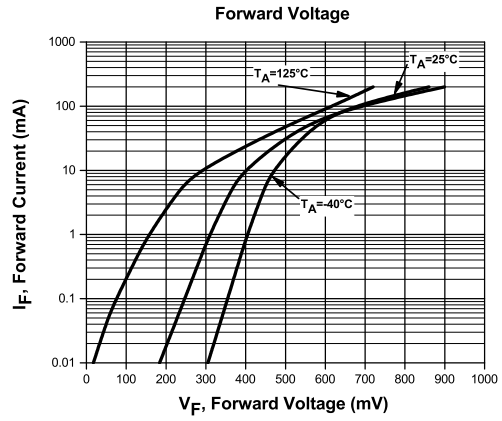
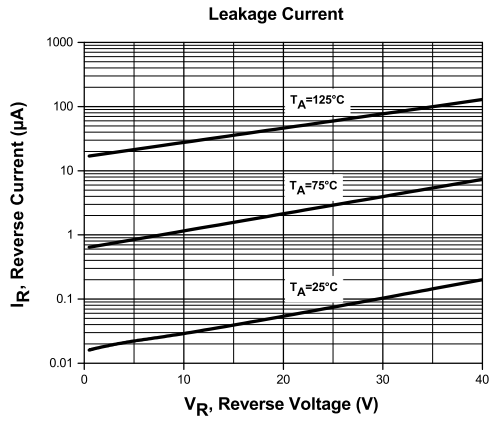
R3 (10-December 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



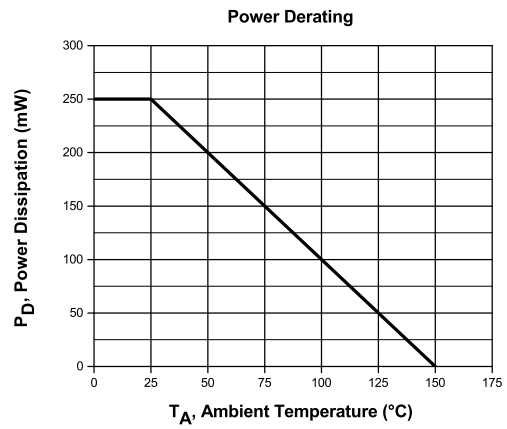
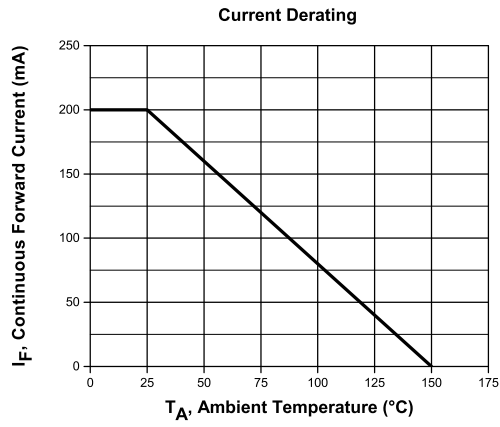
R3 (10-December 2015)

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### TYPICAL ELECTRICAL CHARACTERISTICS



R3 (10-December 2015)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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

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### 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).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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**Worldwide Field Representatives:**  
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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)

# Product End of Life Notification

<b>PDN ID:</b>	PDN01233
<b>Notification Date:</b>	6/01/22
<b>Last Buy Date:</b>	12/01/22
<b>Last Shipment Date</b>	6/01/23

Summary: The CMUSH2-4 series Schottky diodes are discontinued and now classified as Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other 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 ongoing Product Portfolio Management. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

**\* All Plating types (PBFREE, TIN/LEAD) for each item listed are included in this notice.**

<b>Central Part Number</b>	<b>Suggested Replacement</b>
CMUSH2-4 BK	N/A
CMUSH2-4 TR	N/A
CMUSH2-4A BK	N/A
CMUSH2-4A TR	N/A
CMUSH2-4C BK	N/A
CMUSH2-4C TR	N/A
CMUSH2-4L BK	N/A
CMUSH2-4L TR	N/A
CMUSH2-4S BK	N/A
CMUSH2-4S 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. If you would like assistance, please visit <https://my.centralsemi.com/submit-inquiry?type=ER> to submit an online inquiry.

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.