

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

**SURFACE MOUNT SILICON
 SCHOTTKY DIODES**



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: ($T_A=25^\circ\text{C}$)

Peak Repetitive Reverse Voltage
 Continuous Forward Current
 Peak Repetitive Forward Current
 Peak Forward Surge Current, $t_p=10\text{ms}$
 Power Dissipation
 Operating and Storage Junction Temperature
 Thermal Resistance

SYMBOL		UNITS
V_{RRM}	40	V
I_F	200	mA
I_{FRM}	300	mA
I_{FSM}	600	mA
P_D	250	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	500	$^\circ\text{C}/\text{W}$

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

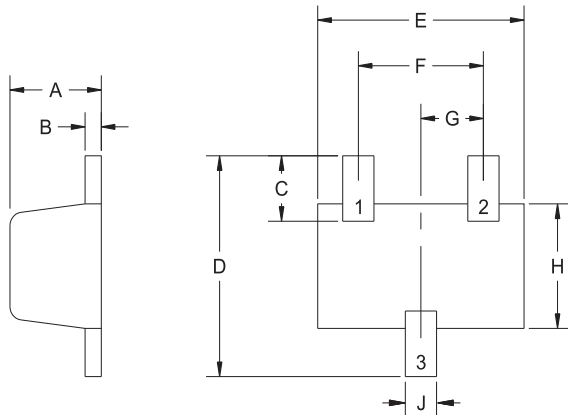
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=25\text{V}$		80	500	nA
I_R	$V_R=25\text{V}, T_A=100^\circ\text{C}$		25	100	μA
BV_R	$I_R=100\mu\text{A}$	40	55		V
V_F	$I_F=100\mu\text{A}$		240	260	mV
V_F	$I_F=500\mu\text{A}$		285	310	mV
V_F	$I_F=1.0\text{mA}$		305	330	mV
V_F	$I_F=50\text{mA}$		535	600	mV
V_F	$I_F=100\text{mA}$		670	750	mV
C_J	$V_R=1.0\text{V}, f=1.0\text{MHz}$			10	pF
t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$			5.0	ns

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SOT-523 CASE - MECHANICAL OUTLINE



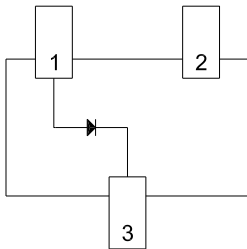
(Bottom View)

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

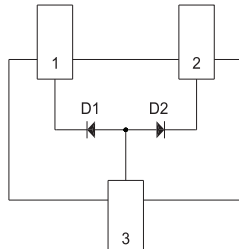


CMUSH2-4

LEAD CODE:

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

MARKING CODE: C42

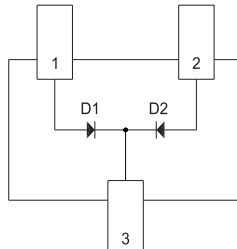


CMUSH2-4A

LEAD CODE:

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

MARKING CODE: C4A

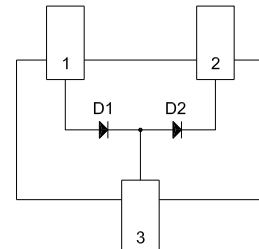


CMUSH2-4C

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

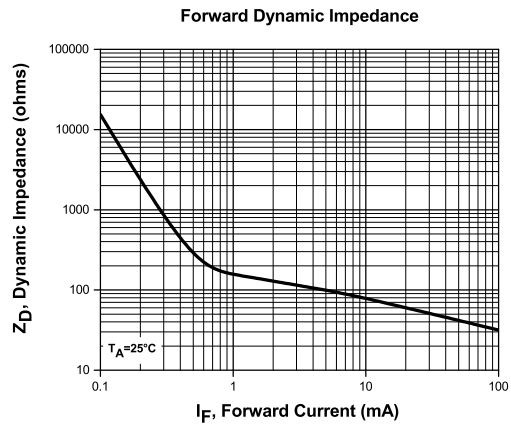
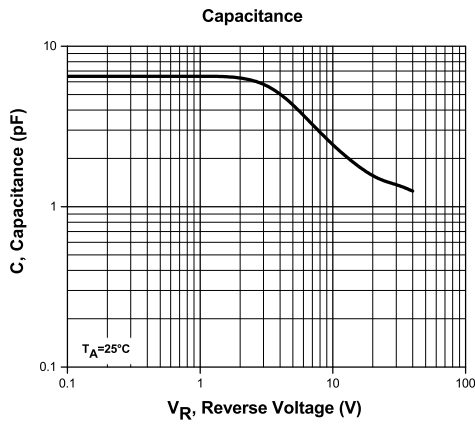
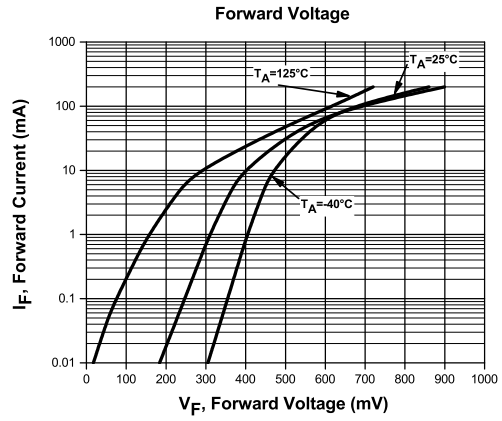
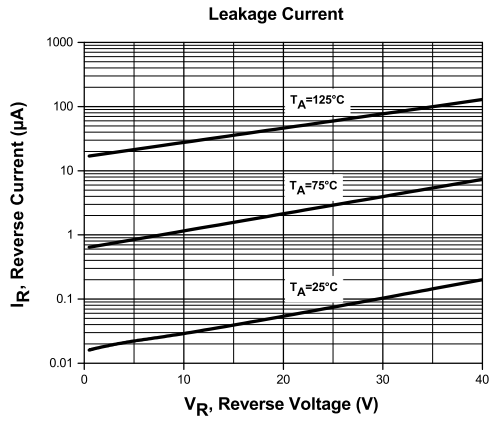
R3 (10-December 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



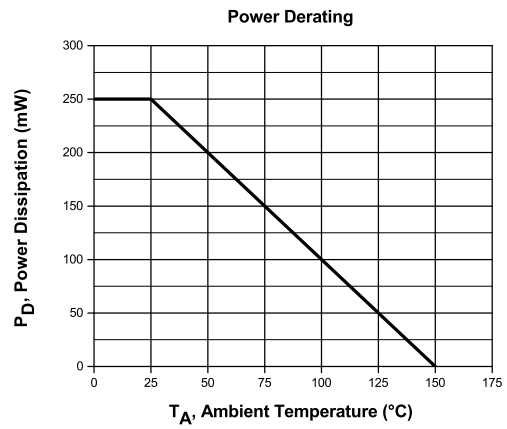
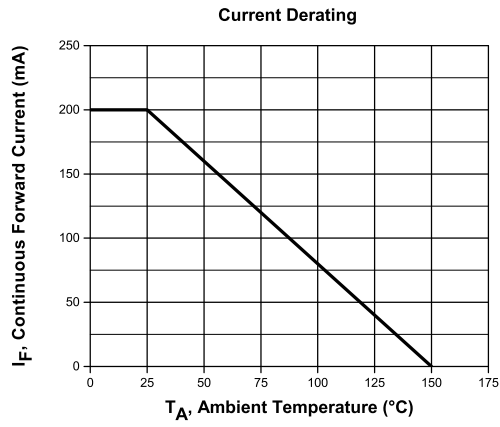
R3 (10-December 2015)

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SURFACE MOUNT SILICON
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TYPICAL ELECTRICAL CHARACTERISTICS



R3 (10-December 2015)

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 quick ship samples (2nd 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

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Worldwide Distributors:
www.centrasemi.com/wwdistributors

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

Product End of Life Notification

PDN ID:	PDN01233
Notification Date:	6/01/22
Last Buy Date:	12/01/22
Last Shipment Date	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.**

Central Part Number	Suggested Replacement
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.centrasemi.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.