

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)**

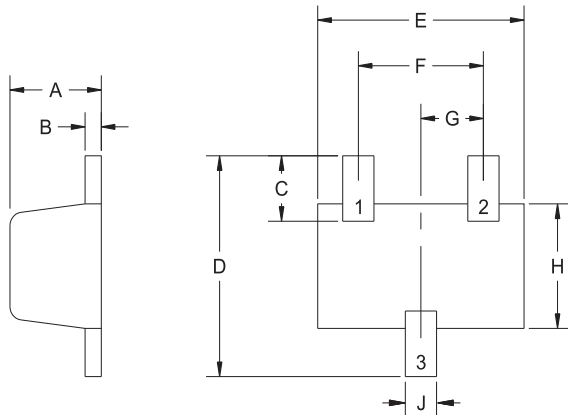
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =25V		80	500	nA
I <sub>R</sub>	V <sub>R</sub> =25V, T <sub>A</sub> =100°C		25	100	µA
BV <sub>R</sub>	I <sub>R</sub> =100µA	40	55		V
V <sub>F</sub>	I <sub>F</sub> =100µA		240	260	mV
V <sub>F</sub>	I <sub>F</sub> =500µA		285	310	mV
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



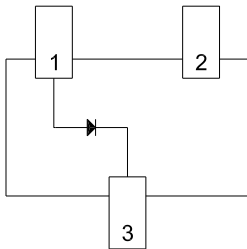
(Bottom View)

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

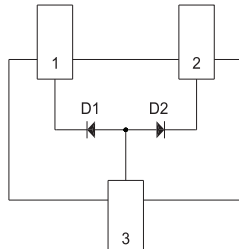


**CMUSH2-4**

**LEAD CODE:**

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

**MARKING CODE: C42**

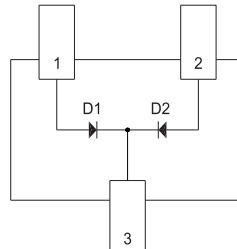


**CMUSH2-4A**

**LEAD CODE:**

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

**MARKING CODE: C4A**

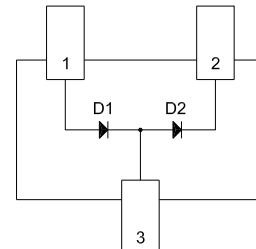


**CMUSH2-4C**

**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**

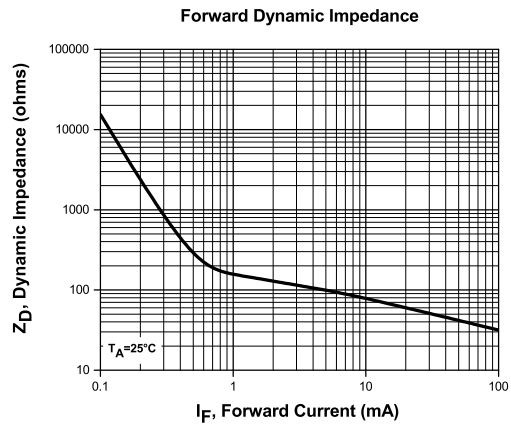
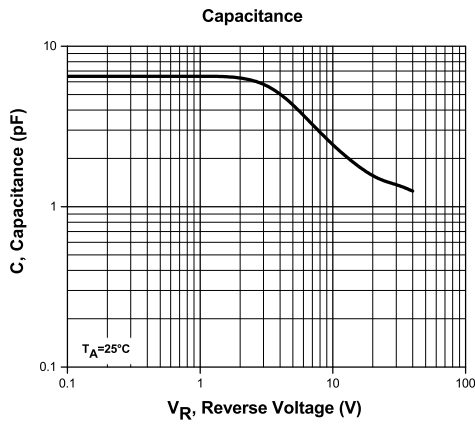
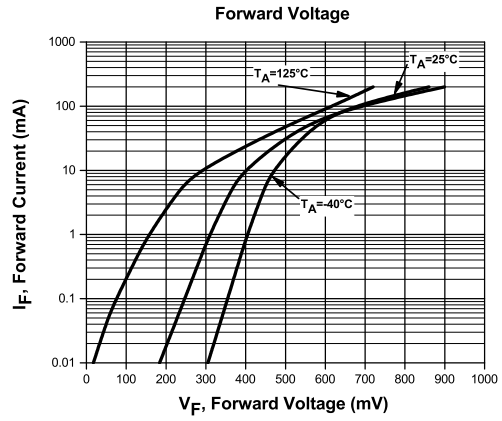
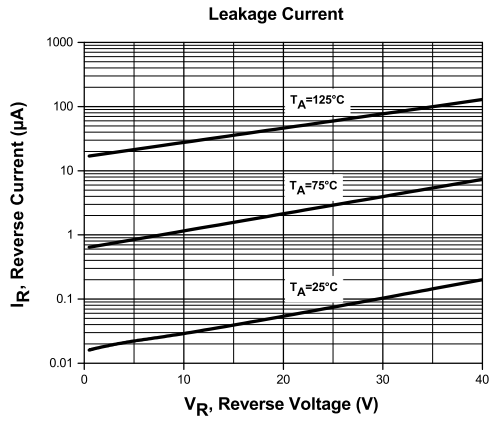
R3 (10-December 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



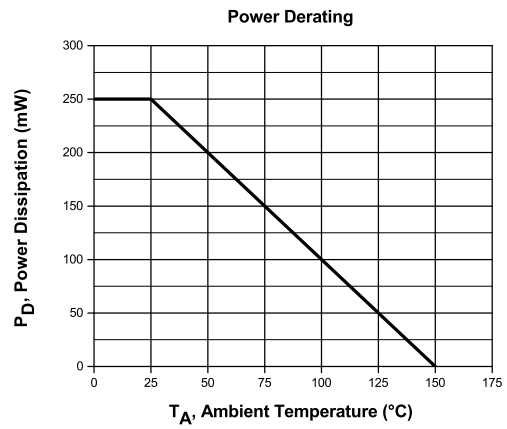
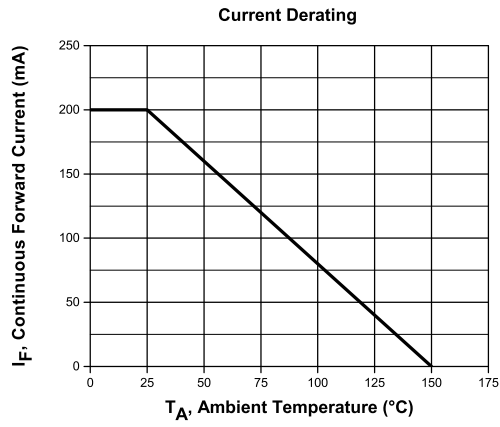
R3 (10-December 2015)

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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

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