

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

**SURFACE MOUNT SILICON
 SCHOTTKY DIODES**



www.centrasemi.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	$^\circ\text{C/W}$

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

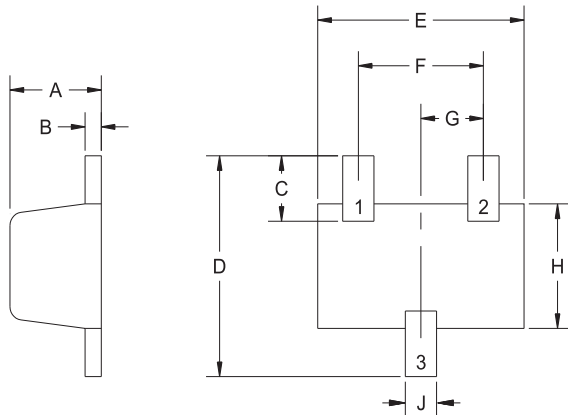
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=25\text{V}$		80	500	nA
I_R	$V_R=25\text{V}, T_A=100^\circ\text{C}$		25	100	μA
BV_R	$I_R=100\mu\text{A}$	40	55		V
V_F	$I_F=100\mu\text{A}$		240	260	mV
V_F	$I_F=500\mu\text{A}$		285	310	mV
V_F	$I_F=1.0\text{mA}$		305	330	mV
V_F	$I_F=50\text{mA}$		535	600	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



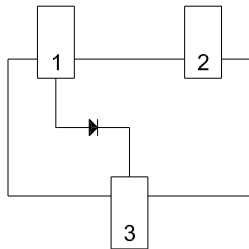
(Bottom View)

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

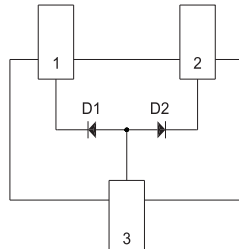


CMUSH2-4

LEAD CODE:

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

MARKING CODE: C42

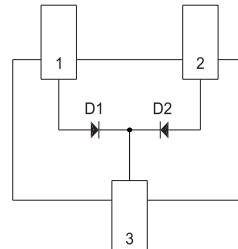


CMUSH2-4A

LEAD CODE:

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

MARKING CODE: C4A

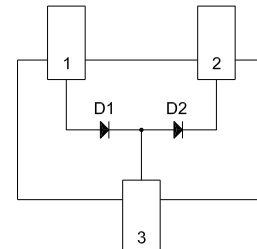


CMUSH2-4C

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

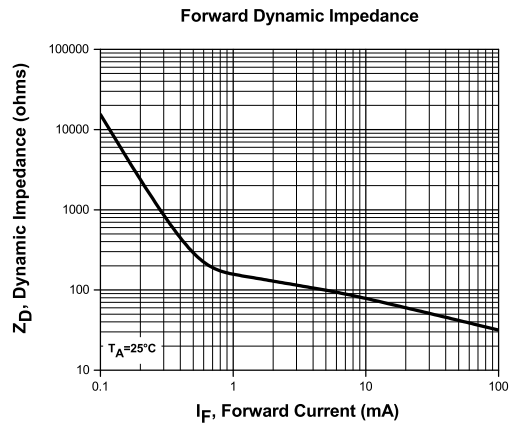
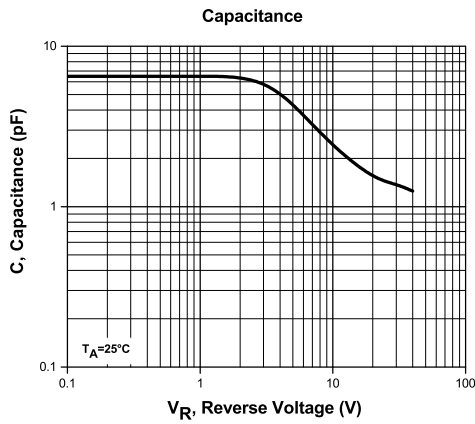
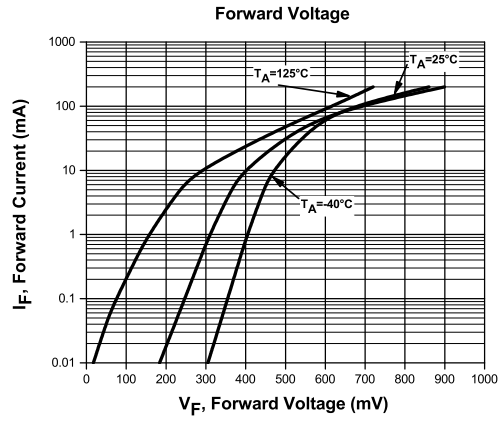
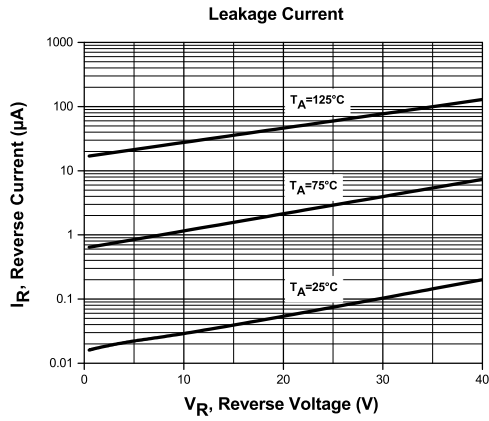
R3 (10-December 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



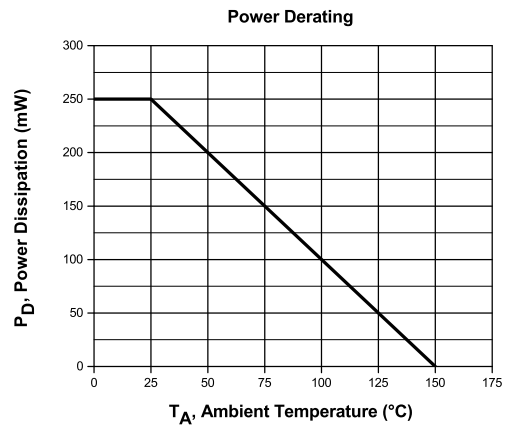
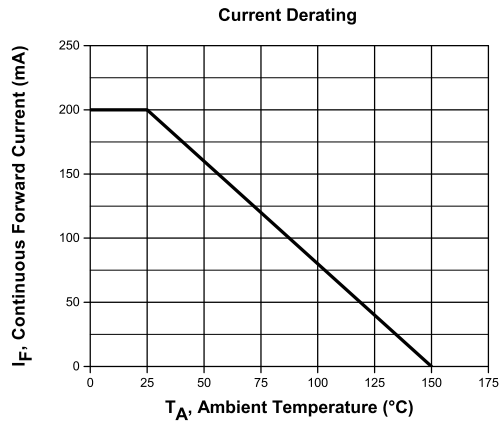
R3 (10-December 2015)

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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

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