

CMUSHW2-4L

SURFACE MOUNT SILICON
HIGH CURRENT, LOW VF
SCHOTTKY DIODE



www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMUSHW2-4L is a high current low V_F silicon Schottky diode in an SOT-523W surface mount package.

MARKING CODE: 24W



LOW
 V_F

SOT-523W CASE

APPLICATIONS:

- Reverse polarity protection
- Voltage clamping
- Steering diode
- Flyback diode

FEATURES:

- Low forward voltage (240mV @ 10mA)
- High peak forward surge current (1.0A)
- Energy efficiency
- Space saving package with gull-wing leads

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

V_{RRM}	40	UNITS
I_F	200	mA
I_{FRM}	350	mA
I_{FSM}	1.0	A
P_D	250	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Θ_{JA}	500	$^\circ\text{C/W}$

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

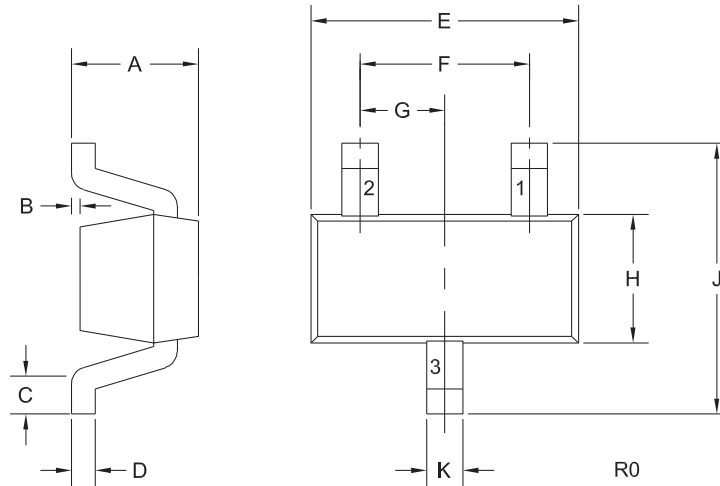
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=20\text{V}$		11	50	μA
BV_R	$I_R=100\mu\text{A}$	40	53		V
V_F	$I_F=10\text{mA}$		0.24	0.325	V
V_F	$I_F=100\text{mA}$		0.35	0.4	V
V_F	$I_F=200\text{mA}$		0.42	0.5	V
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$		8.5	10	pF
t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$		4.0	5.0	ns

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SOT-523W CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE: 24W

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	-	0.031	-	0.80
B	0.000	0.004	0.00	0.10
C	0.006	0.012	0.15	0.30
D	0.005	0.006	0.13	0.15
E	0.058	0.066	1.48	1.68
F	0.039		1.00	
G	0.020		0.50	
H	0.026	0.034	0.66	0.86
J	0.059	0.067	1.50	1.70
K	0.007	0.009	0.19	0.24

SOT-523W (REV: R0)

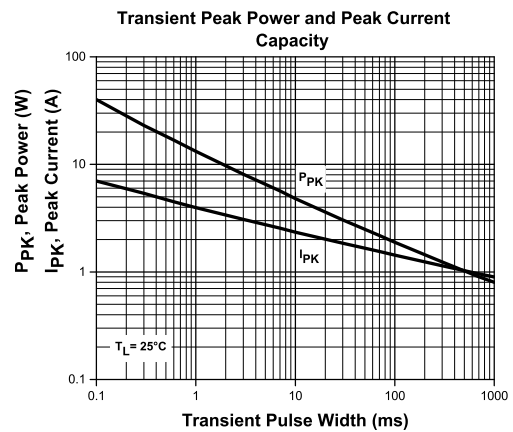
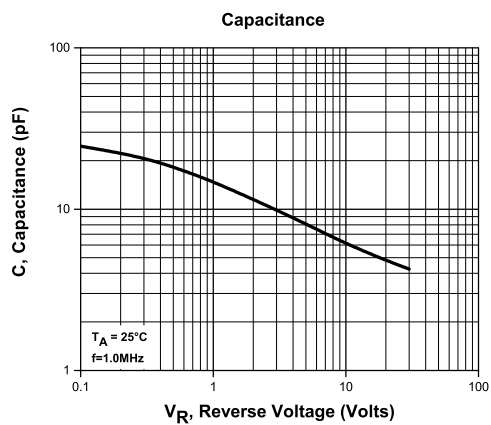
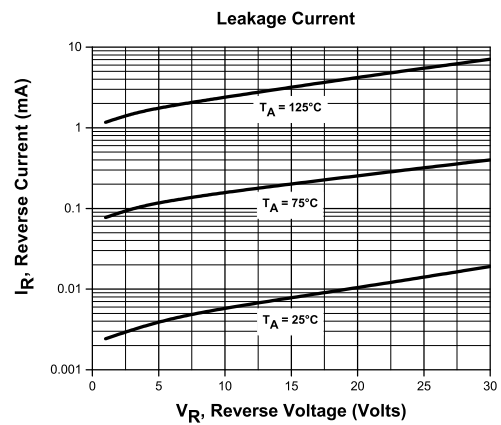
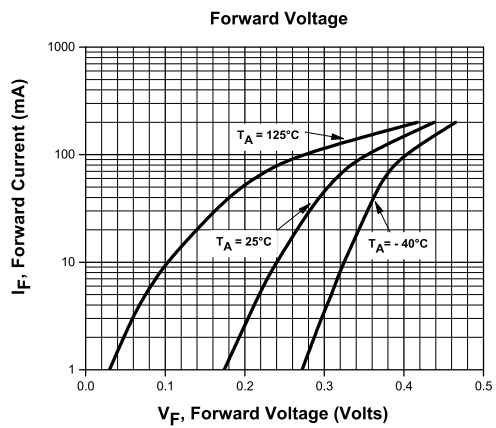
R3 (13-November 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



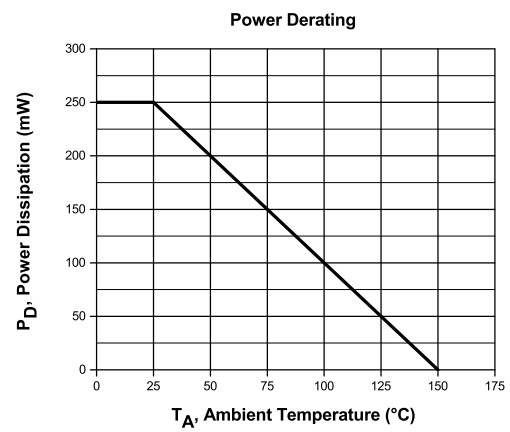
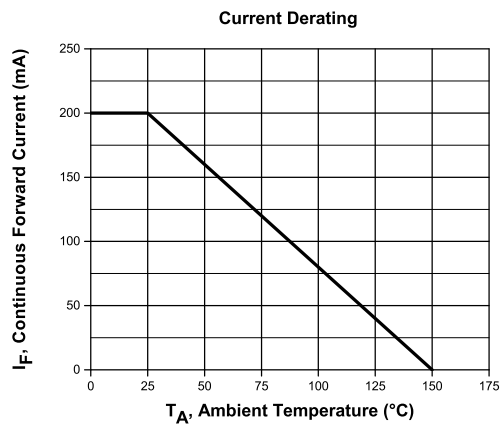
R3 (13-November 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



R3 (13-November 2015)

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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