

CMUSHW2-4L

**SURFACE MOUNT  
HIGH CURRENT, LOW  $V_F$   
SILICON SCHOTTKY DIODE**



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**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**

**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**

SYMBOL		UNITS
$V_{RRM}$	40	V
$I_F$	200	mA
$I_{FRM}$	350	mA
$I_{FSM}$	1.0	A
$P_D$	250	mW
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
$\theta_{JA}$	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	$\mu\text{A}$
$BV_R$	$I_R=100\mu\text{A}$	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
$C_T$	$V_R=4.0\text{V}, f=1.0\text{MHz}$		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

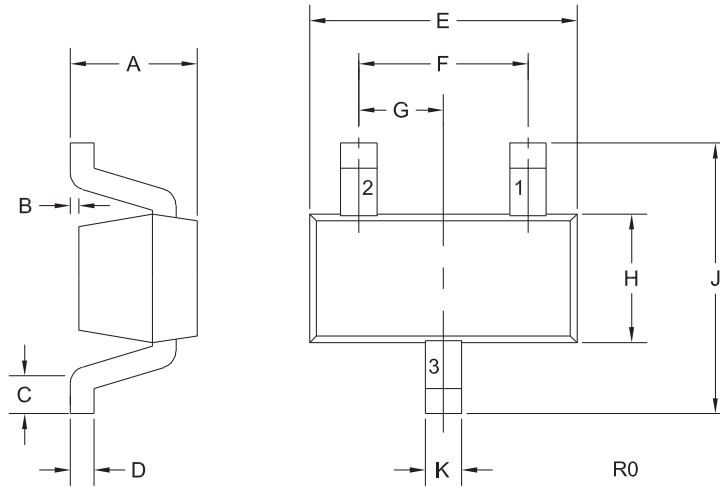
R2 (17-November 2011)

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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)

R2 (17-November 2011)