

CMUSH2-4L

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



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMUSH2-4L is a high current, low V_F silicon Schottky diode in an SOT-523 surface mount package.



MARKING CODE: U24

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

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
I_F	200
I_{FRM}	350
I_{FSM}	1.0
P_D	250
T_J, T_{stg}	-65 to +150
θ_{JA}	500

UNITS

V
mA
mA
A
mW
$^\circ\text{C}$
$^\circ\text{C/W}$

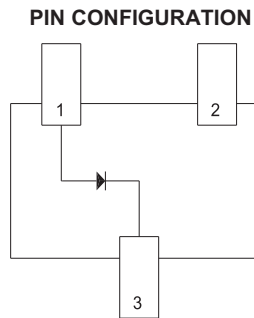
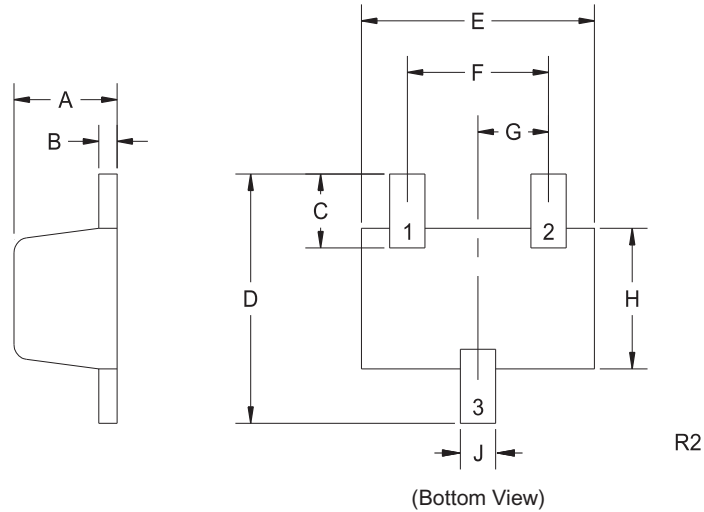
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

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_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

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SOT-523 CASE - MECHANICAL OUTLINE



SYMBOL	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)

LEAD CODE:

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

MARKING CODE: U24

R3 (17-November 2011)