

CMASH-4
SURFACE MOUNT
SILICON SCHOTTKY DIODE

FEMTOmini™



SOD-923 CASE



www.centra-semi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMASH-4 is a high quality Schottky Diode designed for applications where very small size and operational efficiency are prime requirements.

MARKING CODE: A

APPLICATIONS:

- DC / DC Converters
- Voltage Clamping
- Protection Circuits
- Battery powered applications including Cell Phones, Digital Cameras, Pagers, PDAs, Laptop Computers, etc.

FEATURES:

- Current ($I_O=200\text{mA}$)
 - Low Forward Voltage Drop ($V_F=0.35\text{V TYP @ } 1.0\text{mA}$)
 - Low Reverse Current ($25\text{nA TYP @ } 30\text{V}$)
 - Extremely Fast Switching (5ns Max)
 - Miniture, $0.8 \times 0.6 \times 0.4\text{mm}$, ultra low height profile
- FEMTOmini™** Surface Mount Package.

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Peak Repetitive Reverse Voltage
Average Forward Current
Peak Forward Surge Current, $t_p=8.3\text{ms}$
Power Dissipation
Operating Junction Temperature
Storage Temperature
Thermal Resistance

SYMBOL

SYMBOL		UNITS
V_{RRM}	40	V
I_O	200	mA
I_{FSM}	600	mA
P_D	100	mW
T_J	-65 to +125	$^\circ\text{C}$
T_{stg}	-65 to +150	$^\circ\text{C}$
Θ_{JA}	1000	$^\circ\text{C/W}$

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

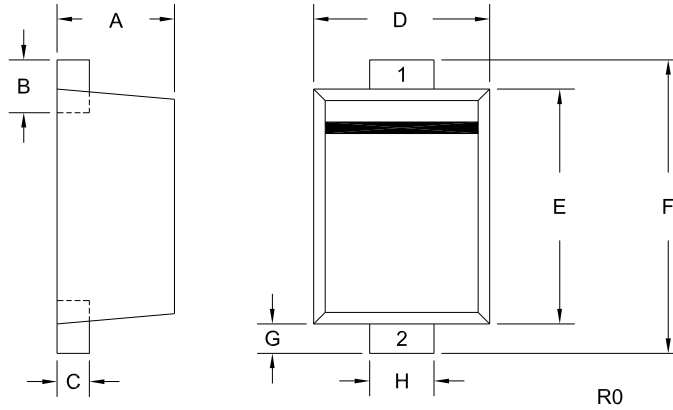
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=30\text{V}$		25	200	nA
BV_R	$I_R=10\mu\text{A}$	40			V
V_F	$I_F=1.0\text{mA}$		0.35	0.38	V
V_F	$I_F=15\text{mA}$		0.55	0.65	V
V_F	$I_F=40\text{mA}$		0.77	1.00	V
C_T	$V_R=0$, $f=1.0\text{MHz}$			5.0	pF
t_{rr}	$I_F=I_R=10\text{mA}$, $I_{rr}=1.0\text{mA}$, $R_L=100\Omega$			5.0	ns

R1 (26-May 2010)

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SOD-923 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) CATHODE
- 2) ANODE

MARKING CODE: A

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.015	0.016	0.39	0.41
B	0.004	0.010	0.10	0.26
C	0.003	0.006	0.08	0.14
D	0.022	0.026	0.55	0.65
E	0.030	0.033	0.75	0.85
F	0.035	0.043	0.90	1.10
G	0.002	0.006	0.05	0.15
H	0.007	0.011	0.17	0.27

SOD-923 (REV: R0)

R1 (26-May 2010)