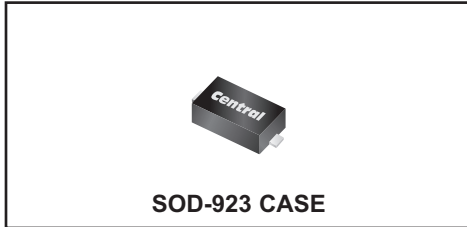


**CMASH-4**  
**SURFACE MOUNT SILICON**  
**SCHOTTKY DIODE**



**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 ( $5.0\text{ns MAX}$ )
- Miniature,  $0.8 \times 0.6 \times 0.4\text{mm}$ , ultra low height profile 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	$^\circ\text{C}$
$\Theta_{JA}$	1000	$^\circ\text{C/W}$

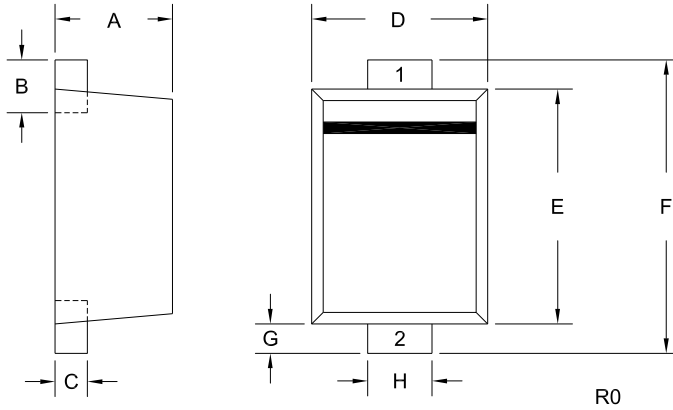
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

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
$C_J$	$V_R=0, f=1.0\text{MHz}$			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

**CMASH-4**  
**SURFACE MOUNT SILICON**  
**SCHOTTKY DIODE**



**SOD-923 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Cathode
- 2) Anode

**MARKING CODE: A**

<b>DIMENSIONS</b>				
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

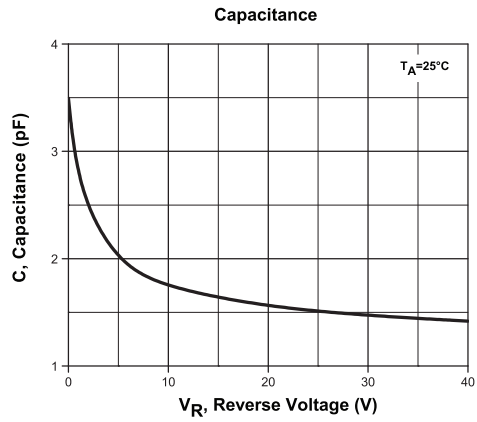
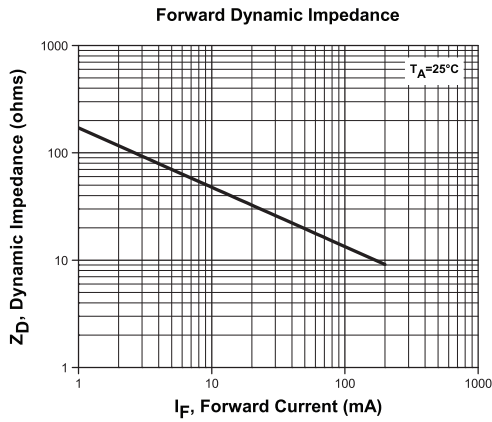
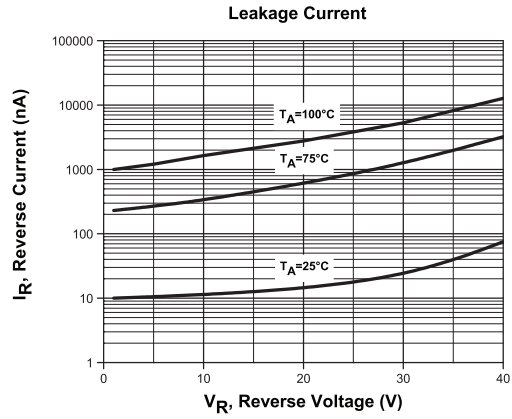
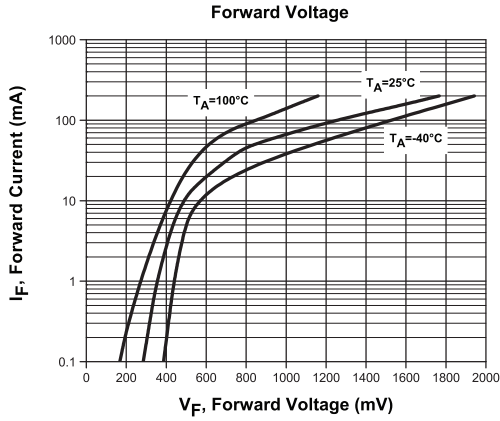
SOD-923 (REV: R0)

R2 (3-August 2015)

**CMASH-4**  
**SURFACE MOUNT SILICON**  
**SCHOTTKY DIODE**



**TYPICAL ELECTRICAL CHARACTERISTICS**

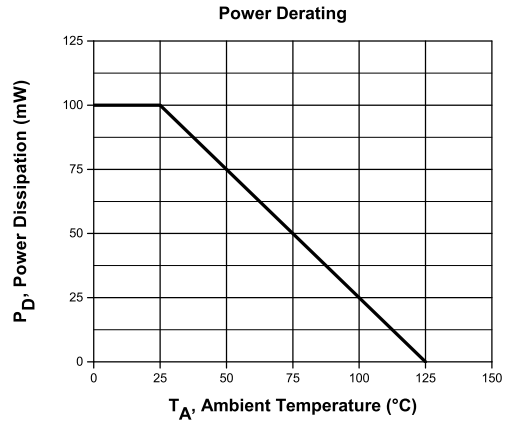
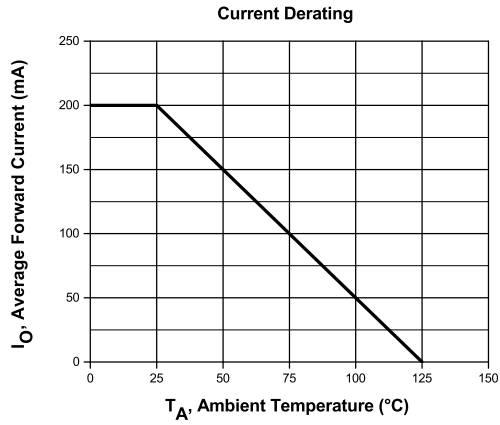


R2 (3-August 2015)

**CMASH-4**  
**SURFACE MOUNT SILICON**  
**SCHOTTKY DIODE**



**TYPICAL ELECTRICAL CHARACTERISTICS**



R2 (3-August 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 (2<sup>nd</sup> 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

---

### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

---

### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

---

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)