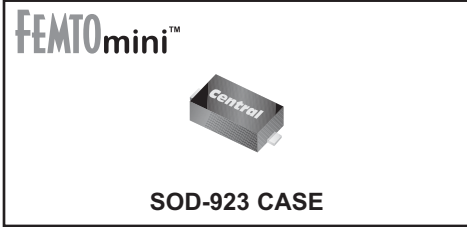


CMAD6001

**SURFACE MOUNT
ULTRA LOW LEAKAGE SILICON
SWITCHING DIODE**



www.centrasemi.com



DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMAD6001 is an ultra low leakage switching diode ideal for applications where very small size and operational efficiency are prime requirements.

MARKING CODE: Q

APPLICATIONS:

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

FEATURES:

- Current ($I_F=250\text{mA}$)
- Forward Voltage Drop ($V_F=1.1\text{V MAX @ } 100\text{mA}$)
- Low Reverse Current ($500\text{pA MAX @ } 75\text{V}$)
- Miniature, 0.8 x 0.6 x 0.4mm, ultra low height profile **FEMTOmini™** Surface Mount Package.

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

Continuous Reverse Voltage
 Peak Repetitive Reverse Voltage
 Continuous Forward Current
 Peak Forward Surge Current, $t_p=1.0\mu\text{s}$
 Peak Forward Surge Current, $t_p=1.0\text{s}$
 Power Dissipation
 Operating and Storage Junction Temperature
 Thermal Resistance

SYMBOL

V_R	75	
V_{RRM}	100	
I_F	250	
I_{FSM}	4.0	
I_{FSM}	1.0	
P_D	100	
T_J, T_{stg}	-65 to +150	
θ_{JA}	1250	

UNITS

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

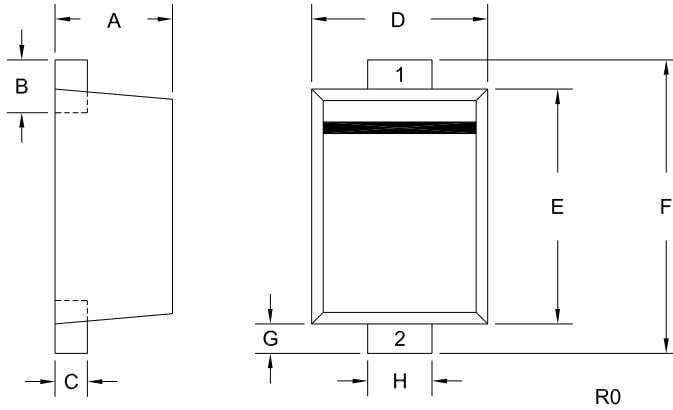
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_R	$V_R=75\text{V}$		500	pA
BV_R	$I_R=100\mu\text{A}$	100		V
V_F	$I_F=1.0\text{mA}$		0.85	V
V_F	$I_F=10\text{mA}$		0.95	V
V_F	$I_F=100\text{mA}$		1.1	V
C_T	$V_R=0, f=1.0\text{MHz}$		2.0	pF
t_{rr}	$I_R=I_F=10\text{mA}, R_L=100\Omega$ Rec. to 1.0mA		3.0	μs

CMAD6001
SURFACE MOUNT
ULTRA LOW LEAKAGE SILICON
SWITCHING DIODE



SOD-923 CASE - MECHANICAL OUTLINE



LEAD CODE:
 1) CATHODE
 2) ANODE

MARKING CODE: Q

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 (8-January 2010)

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 (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

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.centalsemi.com

Worldwide Field Representatives:
www.centalsemi.com/wwreps

Worldwide Distributors:
www.centalsemi.com/wwdistributors

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