CMAD4448

SURFACE MOUNT
ULTRA HIGH SPEED SILICON
SWITCHING DIODE

FEMTOmini™



SOD-923 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMAD4448 is an ultra high speed switching diode ideal for applications where very small size and operational efficiency are prime requirements.

MARKING CODE: M

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=250mA)
- Forward Voltage Drop (V_F=0.91V TYP @ 100mA)
- Extremely Fast Switching Speed (4ns Max)
- Miniture, 0.8 x 0.6 x 0.4mm, ultra low height profile **FEMTO**mini™ Surface Mount Package.

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Peak Repetitive Reverse Voltage	V_{RRM}	120	V
Continuous Forward Current	I_F	250	mA
Peak Repetitive Forward Current	I_{FRM}	500	mA
Peak Forward Surge Current, tp=1.0μs	I_{FSM}	4.0	A
Peak Forward Surge Current, tp=1.0s	I_{FSM}	1.0	A
Power Dissipation	P_D	100	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	1250	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

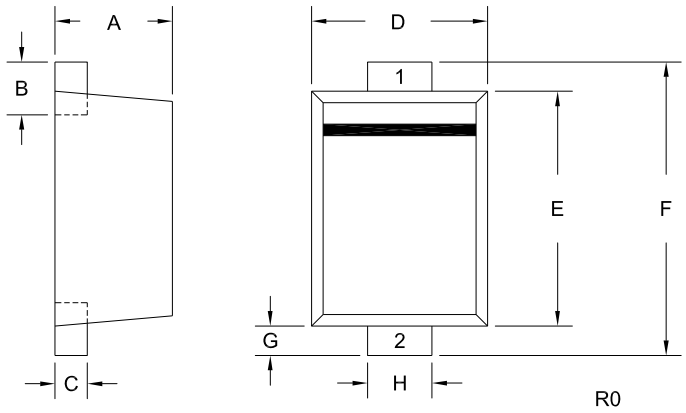
SYMBOL	**TEST CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNITS**
I_R	V_R=50V			300	nA
I_R	V_R=50V, T_A=125°C			100	μA
I_R	V_R=100V			500	nA
BV_R	I_R=100μA	120	150		V
V_F	I_F=1.0mA	0.55	0.59	0.65	V
V_F	I_F=10mA	0.67	0.72	0.77	V
V_F	I_F=100mA	0.85	0.91	1.0	V
C_T	V_R=0, f=1.0MHz			2.0	pF
t_{rr}	I_R=I_F=10mA, R_L=100Ω, Rec. to 1.0mA		2.0	4.0	ns

R1 (8-January 2010)

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SOD-923 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) CATHODE
2) ANODE

MARKING CODE: M

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)

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

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.centralsemi.com

Worldwide Field Representatives:
www.centralsemi.com/wwreps

Worldwide Distributors:
www.centralsemi.com/wwdistributors

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