### **CMUD4448**

# SURFACE MOUNT HIGH SPEED SILICON SWITCHING DIODE



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## **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMUD4448 type is an ultra-high speed silicon switching diode manufactured by the epitaxial planar process, epoxy molded in an ULTRAmini™ surface mount package, designed for high speed switching applications.

MARKING CODE: DAA



MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Continuous Reverse Voltage	$v_R$	75	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Continuous Forward Current	I <sub>F</sub>	250	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	500	mA
Peak Forward Surge Current, tp=1.0μs	I <sub>FSM</sub>	4.0	Α
Peak Forward Surge Current, tp=1.0s	I <sub>FSM</sub>	1.0	Α
Power Dissipation	$P_{D}$	250	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{\sf JA}$	500	°C/W

# $\textbf{ELECTRICAL CHARACTERISTICS:} \ (T_{\mbox{\scriptsize A}} = 25 \ ^{\circ}\mbox{C unless otherwise noted})$

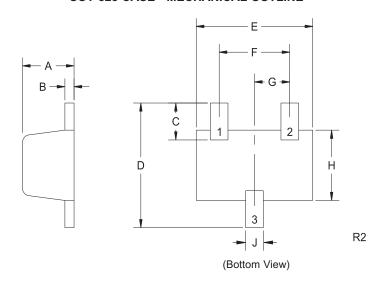
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{R}$	V <sub>R</sub> =20V		25	nA
$BV_R$	I <sub>R</sub> =5.0μA	75		V
$BV_R$	I <sub>R</sub> =100μA	100		V
VF	I <sub>F</sub> =5.0mA	0.62	0.72	V
$V_{F}$	I <sub>F</sub> =100mA		1.0	V
$C_T$	$V_R=0$ , f=1.0MHz		4.0	pF
t <sub>rr</sub>	$I_R = I_F = 10$ mA, $I_{rr} = 1.0$ mA, $R_L = 100$ $\Omega$		4.0	ns

### **CMUD4448**

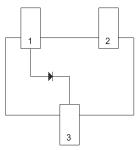
## **SURFACE MOUNT** HIGH SPEED SILICON SWITCHING DIODE



# **SOT-523 CASE - MECHANICAL OUTLINE**



## **PIN CONFIGURATION**



DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.023	0.031	0.58	0.78			
В	0.002	0.008	0.04	0.20			
С	0.013	0.021	0.34	0.54			
D	0.059	0.067	1.50	1.70			
Е	0.059	0.067	1.50	1.70			
F	0.035	0.043	0.90	1.10			
G	0.020		0.50				
Н	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 Connection3) Cathode

MARKING CODE: DAA

R3 (9-February 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 (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

#### **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

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