

**CMUD4448**  
**SURFACE MOUNT**  
**ULTRAmimi™**  
**HIGH SPEED**  
**SILICON SWITCHING DIODE**

**ULTRAmimi™**



**SOT-523 CASE**

**Central™**  
**Semiconductor Corp.**

**DESCRIPTION:**

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

**MARKING CODE: DAA**

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

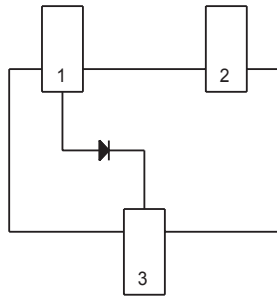
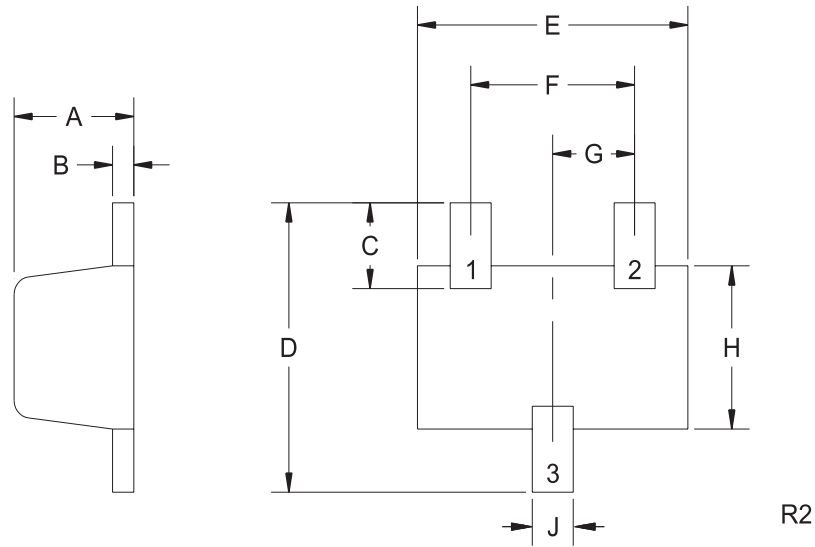
	SYMBOL		UNITS
Continuous Reverse Voltage	$V_R$	75	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Continuous Forward Current	$I_F$	250	mA
Peak Repetitive Forward Current	$I_{FRM}$	500	mA
Forward Surge Current, $t_p=1$ ms	$I_{FSM}$	4.0	A
Forward Surge Current, $t_p=1$ s	$I_{FSM}$	1.0	A
Power Dissipation	$P_D$	250	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	500	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$BV_R$	$I_R=5.0\mu\text{A}$	75		V
$BV_R$	$I_R=100\mu\text{A}$	100		V
$I_R$	$V_R=20\text{V}$		25	nA
$V_F$	$I_F=5.0\text{mA}$	0.62	0.72	V
$V_F$	$I_F=100\text{mA}$		1.0	V
$C_T$	$V_R=0, f=1$ MHz		4.0	pF
$t_{rr}$	$I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$		4.0	ns

**SOT-523 CASE - MECHANICAL OUTLINE**

**BOTTOM VIEW**



**LEAD CODE:**

- 1) ANODE
- 2) NO CONNECTION
- 3) CATHODE

**MARKING CODE: DAA**

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.023	0.031	0.58	0.78
B	0.002	0.008	0.04	0.20
C	0.013	0.021	0.34	0.54
D	0.059	0.067	1.50	1.70
E	0.059	0.067	1.50	1.70
F	0.035	0.043	0.90	1.10
G	0.020		0.50	
H	0.031	0.039	0.78	0.98
J	0.010	0.014	0.25	0.35

SOT-523 (REV: R2)

R2 (30-November 2003)