

CMUD4448

ULTRAmi™
HIGH SPEED
SWITCHING DIODE

ULTRAmi™



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 ULTRAmi™ surface mount package, designed for high speed switching applications. Marking code is 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}	250	mA
Forward Surge Current, $t_p=1 \mu\text{sec}$.	I_{FSM}	4000	mA
Forward Surge Current, $t_p=1 \text{ sec}$.	I_{FSM}	1000	mA
Power Dissipation	P_D	250	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	θ_{JA}	500	$^\circ\text{C/W}$

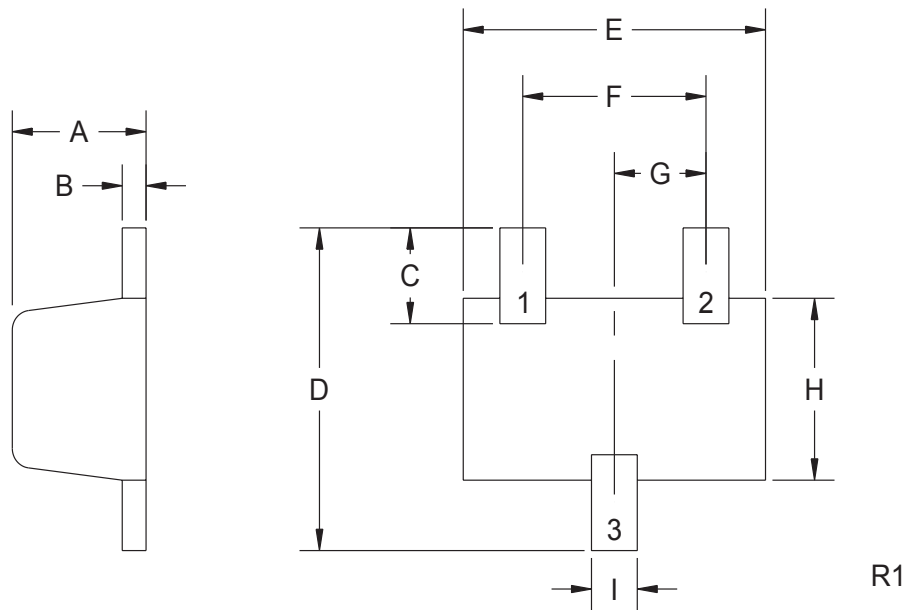
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

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	$V_R=0, f=1 \text{ MHz}$		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

R0 (12-September 2001)

SOT-523 CASE - MECHANICAL OUTLINE

BOTTOM VIEW



LEAD CODE:

- 1) Anode
- 2) No Connection
- 3) Cathode

MARKING CODE: DAA

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.025	0.029	0.63	0.73
B	0.004	0.005	0.10	0.13
C	0.015	0.019	0.39	0.49
D	0.061	0.065	1.55	1.65
E	0.061	0.065	1.55	1.65
F	0.039	0.040	0.98	1.02
G	0.019	0.020	0.48	0.52
H	0.033	0.037	0.83	0.93
I	0.009	0.010	0.23	0.25

SOT-523 (REV: R1)

R0 (12-September 2001)