

**CMSD4448**

**SUPER-MINI  
HIGH SPEED  
SWITCHING DIODE**

**SUPER<sup>TM</sup>  
mini**



**SOT-323 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSD4448 type is a ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded super-mini surface mount package, designed for high speed switching applications.

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

	<b>SYMBOL</b>		<b>UNITS</b>
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	$\Theta_{JA}$	500	$^{\circ}\text{C/W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
$V_{BR}$	$I_R=5.0\mu\text{A}$	75		V
$V_{BR}$	$I_R=100\mu\text{A}$	100		V
$I_R$	$V_R=20\text{V}$		25	mA
$V_F$	$I_F=5.0\text{mA}$	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

All dimensions in inches (mm).

