

CMDSH-4E

**ENHANCED SPECIFICATION  
SCHOTTKY DIODE**

**ENHANCED  
SPECIFICATION**

**SUPERmini™**



**SOD-323 CASE**

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMDSH-4E is an Enhanced version of the CMDSH-3 Silicon Schottky Diode in an SOD-323 Surface Mount Package.

**ENHANCED SPECIFICATIONS:**

- ◆  $I_O$  from 100mA max to 200mA max.
- ◆  $BV_R$  from 30V min to 40V min.
- ◆  $V_F$  from 1.0V max to 0.8V max.

**MARKING CODE: S1E**

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

- ◆ **Peak Repetitive Reverse Voltage**
- ◆ **Average Forward Current**
- Peak Repetitive Forward Voltage
- Forward Surge Current,  $t_p=10\text{ms}$
- Power Dissipation
- Operating and Storage
- Junction Temperature
- Thermal Resistance

**SYMBOL**

$V_{RRM}$

**40**

**UNITS**

**V**

$I_O$

**200**

**mA**

$I_{FRM}$

350

mA

$I_{FSM}$

750

mA

$P_D$

250

mW

$T_J, T_{stg}$

-65 to +150

$^\circ\text{C}$

$\Theta_{JA}$

500

$^\circ\text{C/W}$

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

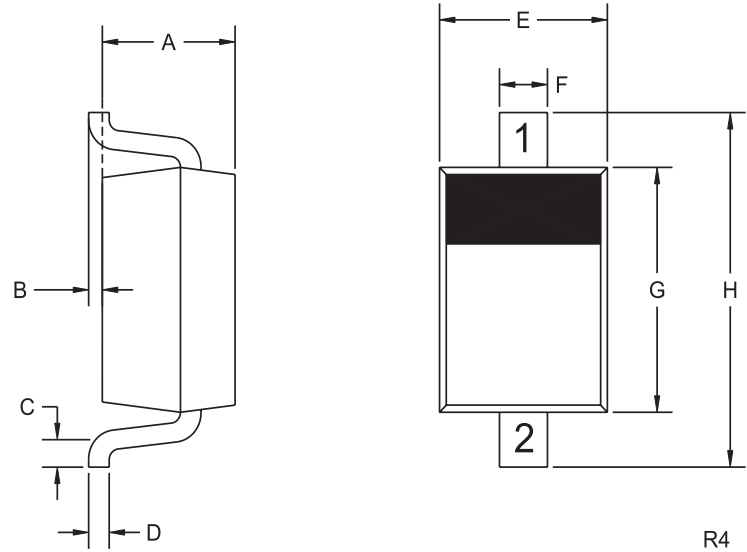
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
◆ $BV_R$	$I_R=100\mu\text{A}$	<b>40</b>	<b>50</b>		<b>V</b>
$V_F$	$I_F=2.0\text{mA}$		0.29	0.33	V
◆ $V_F$	$I_F=15\text{mA}$		<b>0.37</b>	<b>0.42</b>	<b>V</b>
◆ $V_F$	$I_F=100\text{mA}$		<b>0.61</b>	<b>0.80</b>	<b>V</b>
◆ ◆ $V_F$	$I_F=200\text{mA}$		<b>0.65</b>	<b>1.0</b>	<b>V</b>
$I_R$	$V_R=25\text{V}$		90	500	nA
$I_R$	$V_R=25\text{V}, T_A=100^\circ\text{C}$		25	100	$\mu\text{A}$
$C_T$	$V_R=1.0\text{V}, f=1\text{ MHz}$		7.0		pF
$t_{rr}$	$I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$			5.0	ns

- ◆ Enhanced specification.
- ◆ ◆ Additional Enhanced specification.

R0 (10-May 2004)

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**SOD-323 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Cathode
- 2) Anode

**MARKING CODE: S1E**

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.031	0.039	0.80	1.00
B	0.000	0.004	0.00	0.10
C	0.008	-	0.20	-
D	0.004	0.007	0.11	0.19
E	0.045	0.053	1.15	1.35
F	-	0.014	-	0.35
G	0.063	0.071	1.60	1.80
H	0.094	0.102	2.40	2.60

SOD-323 (REV: R4)