



www.centralsemi.com

#### 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<sub>O</sub> from 100mA MAX to 200mA MAX
- ♦ BV<sub>R</sub> from 30V MIN to 40V MIN
- ♦ V<sub>F</sub> from 1.0V MAX to 0.8V MAX

## MARKING CODE: S1E

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Average Forward Current	ЧO	200	mA
Peak Repetitive Forward Current	<sup>I</sup> FRM	350	mA
Peak Forward Surge Current, tp=10ms	IFSM	750	mA
Power Dissipation	PD	250	mW
Operating and Storage Junction Temperature	т <sub>Ј</sub> , Т <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	Θ <sub>JA</sub>	500	°C/W

#### **ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

symbol I <sub>R</sub>	TEST CONDITIONS V <sub>R</sub> =25V	MIN	<b>TYP</b> 90	<b>MAX</b> 500	UNITS nA
I <sub>R</sub>	V <sub>R</sub> =25V, T <sub>A</sub> =100°C		25	100	μA
♦ BV <sub>R</sub>	Ι <sub>R</sub> =100μΑ	40	50		V
V <sub>F</sub>	I <sub>F</sub> =2.0mA		0.29	0.33	V
• v <sub>F</sub>	I <sub>F</sub> =15mA		0.37	0.42	V
• v <sub>F</sub>	I <sub>F</sub> =100mA		0.51	0.80	V
• • V <sub>F</sub>	I <sub>F</sub> =200mA		0.65	1.0	V
СJ	V <sub>R</sub> =1.0V, f=1.0MHz		7.0		pF
t <sub>rr</sub>	$I_F = I_R = 10$ mA, $I_{rr} = 1.0$ mA, $R_L = 100\Omega$			5.0	ns

Enhanced specification.

♦ Additional Enhanced specification.

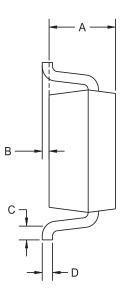
R3 (11-February 2016)

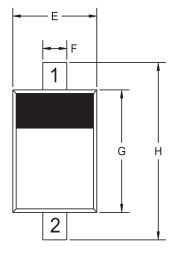


CMDSH-4E

#### ENHANCED SPECIFICATION SURFACE MOUNT SILICON SCHOTTKY DIODE

## SOD-323 CASE - MECHANICAL OUTLINE





R4

LEAD CODE: 1) Cathode 2) Anode

MARKING CODE: S1E

DIMENSIONS						
	INCHES		MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
A	0.031	0.039	0.80	1.00		
В	0.000	0.004	0.00	0.10		
С	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		
Н	0.094	0.102	2.40	2.60		
SOD-323 (REV: R4)						

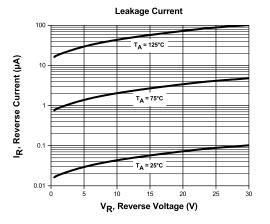
R3 (11-February 2016)

www.centralsemi.com

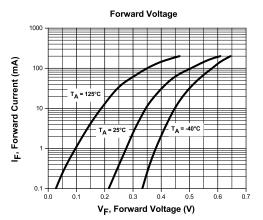


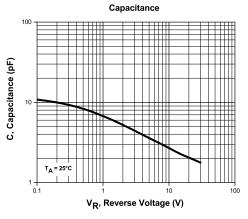
CMDSH-4E

#### ENHANCED SPECIFICATION SURFACE MOUNT SILICON SCHOTTKY DIODE

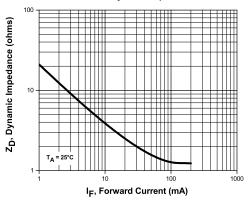


## TYPICAL ELECTRICAL CHARACTERISTICS





Forward Dynamic Impedance



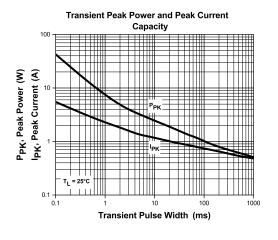
www.centralsemi.com

R3 (11-February 2016)

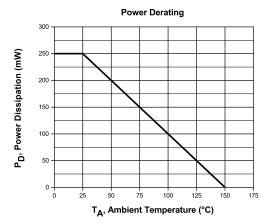


CMDSH-4E

#### ENHANCED SPECIFICATION SURFACE MOUNT SILICON SCHOTTKY DIODE



#### **Current Derating** 250 I<sub>O</sub>, Average Forward Current (mA) 200 150 100 50 0+0 25 50 75 100 125 150 175 T<sub>A</sub>, Ambient Temperature (°C)



R3 (11-February 2016)

www.centralsemi.com

## TYPICAL ELECTRICAL CHARACTERISTICS

## 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

**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

- · Custom product packing
- - · 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

Worldwide Distributors: www.centralsemi.com/wwdistributors

For the latest version of Central Semiconductor's LIMITATIONS AND DAMAGES DISCLAIMER, which is part of Central's Standard Terms and Conditions of sale, visit: www.centralsemi.com/terms

www.centralsemi.com

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Schottky Diodes & Rectifiers category:

Click to view products by Central Semiconductor manufacturer:

Other Similar products are found below :

CUS06(TE85L,Q,M) MA4E2039 D1FH3-5063 MBR0530L-TP MBR10100CT-BP MBR30H100MFST1G MMBD301M3T5G PMAD1103-LF PMAD1108-LF RB160M-50TR RB520S-30 RB551V-30 DD350N18K DZ435N40K DZ600N16K BAS16E6433HTMA1 BAS 3010S-02LRH E6327 BAT 54-02LRH E6327 IDL02G65C5XUMA1 NSR05F40QNXT5G NSVR05F40NXT5G JANS1N6640 SB07-03C-TB-H SB1003M3-TL-W SBAT54CWT1G SBM30-03-TR-E SBS818-TL-E SK32A-LTP SK33A-TP SK34A-TP SK34B-TP SMD1200PL-TP ACDBN160-HF SS3003CH-TL-E STPS30S45CW PDS3100Q-7 GA01SHT18 CRS10I30A(TE85L,QM MBR1240MFST1G MBRB30H30CT-1G BAS28E6433HTMA1 BAS 70-02L E6327 HSB123JTR-E JANTX1N5712-1 VS-STPS40L45CW-N3 DD350N12K SB007-03C-TB-E SB10015M-TL-E SB1003M3-TL-E SK110-LTP