

CMSH1-40HE CMSH1-100HE  
 CMSH1-60HE CMSH1-150HE  
 CMSH1-80HE CMSH1-200HE

**SURFACE MOUNT SILICON  
 SCHOTTKY RECTIFIERS  
 1.0 AMP, 40 THRU 200 VOLT**



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSH1-40HE series 1.0 Amp surface mount silicon Schottky rectifier is a highly efficient component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications.

**MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE**



**SMA CASE**

**FEATURES:**

- High reliability
- High efficiency Schottky rectifier
- 40V to 200V range
- Low leakage current
- Low  $V_F$

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

	SYMBOL	CMSH1						UNITS
		-40HE	-60HE	-80HE	-100HE	-150HE	-200HE	
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	60	80	100	150	200	V
DC Blocking Voltage	$V_R$	40	60	80	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	42	56	70	105	140	V
Average Forward Current	$I_O$	1.0						A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$	30						A
Power Dissipation	$P_D$	1.4						W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150						$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	89						$^\circ\text{C/W}$
Thermal Resistance	$\theta_{JL}$	30						$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
$I_R$	$V_R=\text{Rated } V_{RRM}$		50	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$		20	mA
$V_F$	$I_F=1.0\text{A}$ (CMSH1-40HE)	0.69	0.70	V
$V_F$	$I_F=1.0\text{A}$ (CMSH1-60HE)	0.69	0.74	V
$V_F$	$I_F=1.0\text{A}$ (CMSH1-80HE, -100HE)	0.77	0.80	V
$V_F$	$I_F=1.0\text{A}$ (CMSH1-150HE)	0.80	0.90	V
$V_F$	$I_F=1.0\text{A}$ (CMSH1-200HE)	0.81	0.90	V
$C_J$	$V_R=0, f=1.0\text{MHz}$ (CMSH1-40HE, 60HE)	116		pF
$C_J$	$V_R=0, f=1.0\text{MHz}$ (CMSH1-80HE, 100HE)	104		pF
$C_J$	$V_R=0, f=1.0\text{MHz}$ (CMSH1-150HE)	86		pF
$C_J$	$V_R=0, f=1.0\text{MHz}$ (CMSH1-200HE)	62.5		pF

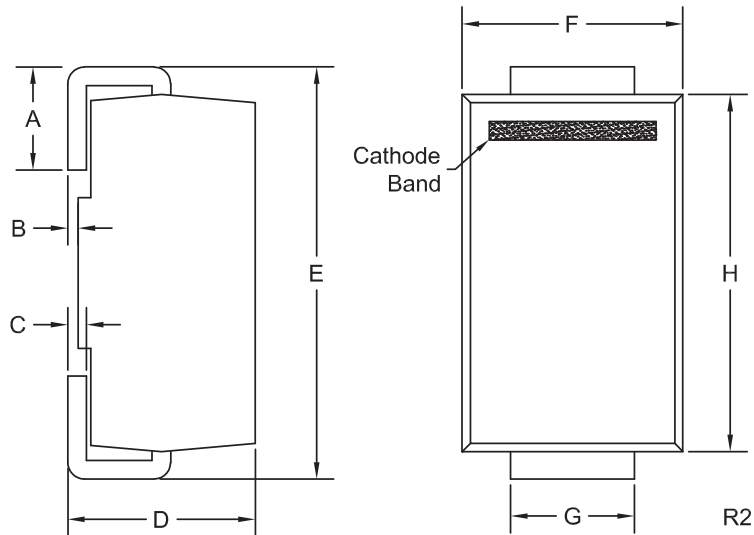
R3 (24-November 2015)

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**SMA CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMSH1-40HE	CS40HE
CMSH1-60HE	CS60HE
CMSH1-80HE	CS80HE
CMSH1-100HE	CS100HE
CMSH1-150HE	CS150HE
CMSH1-200HE	CS200HE

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.004	0.008	0.10	0.20
C	0.006	0.012	0.15	0.30
D	0.078	0.103	1.98	2.62
E	0.188	0.220	4.78	5.59
F	0.090	0.115	2.29	2.92
G	0.050	0.070	1.27	1.78
H	0.157	0.181	3.99	4.60

SMA (REV: R2)

R3 (24-November 2015)

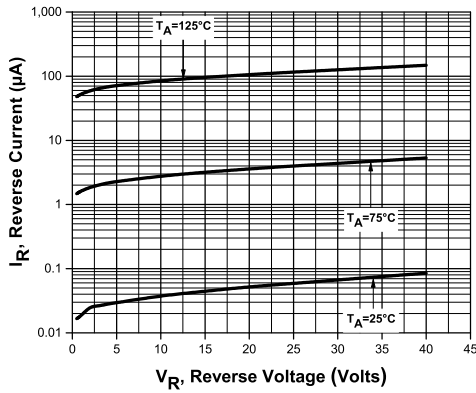
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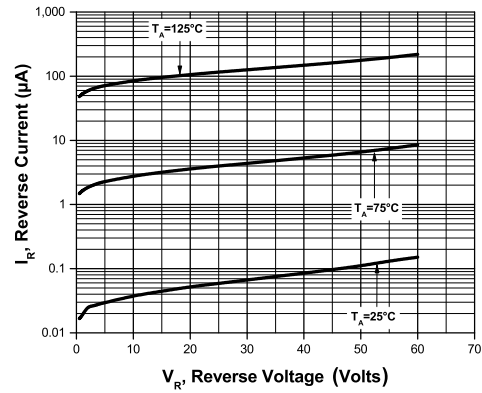
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TYPICAL ELECTRICAL CHARACTERISTICS

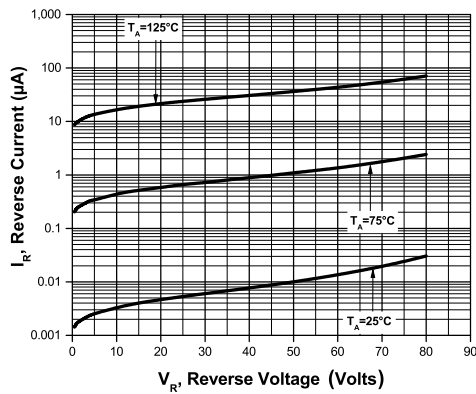
Leakage Current for CMSH1-40HE



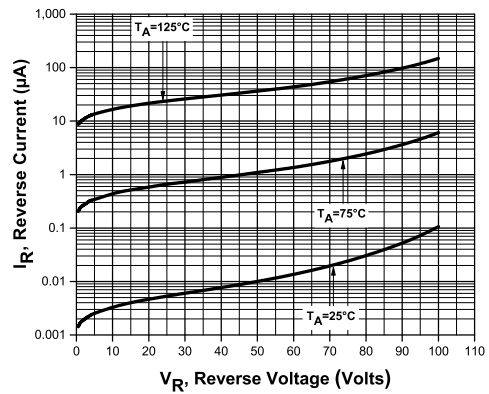
Leakage Current for CMSH1-60HE



Leakage Current for CMSH1-80HE



Leakage Current for CMSH1-100HE



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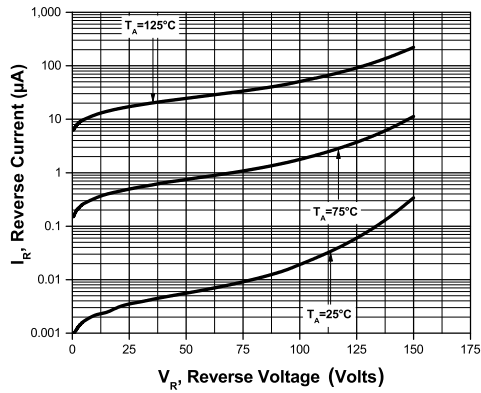
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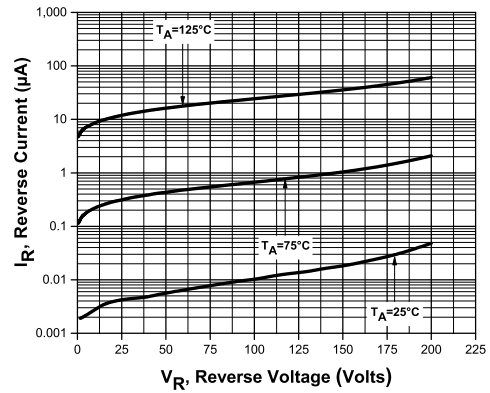
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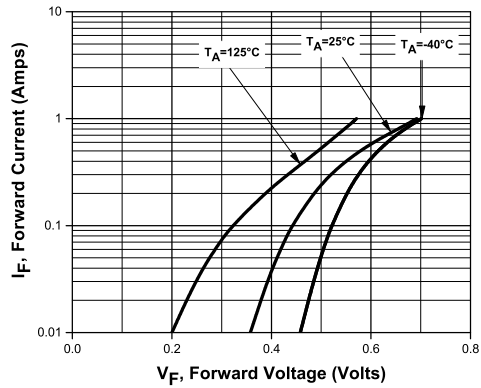
Leakage Current for CMSH1-150HE



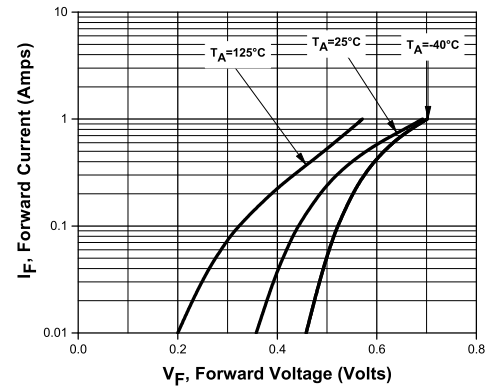
Leakage Current for CMSH1-200HE



Forward Voltage for CMSH1-40HE



Forward Voltage for CMSH1-60HE



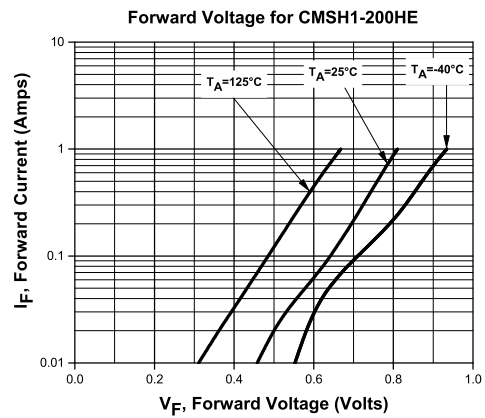
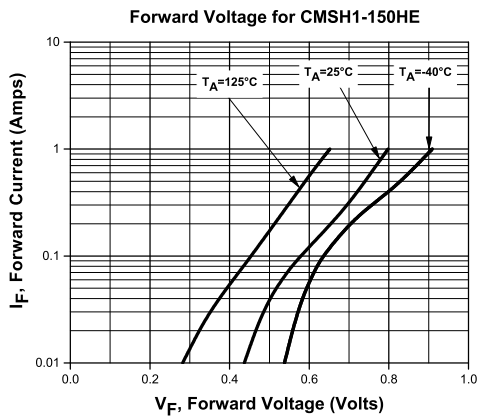
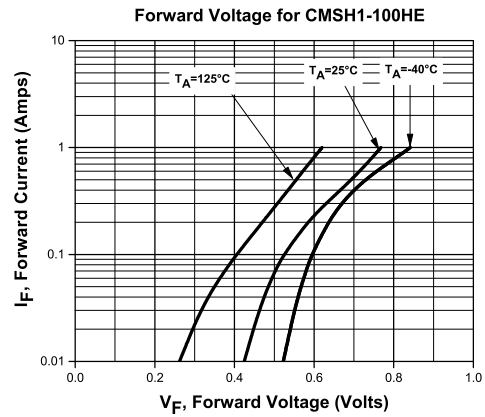
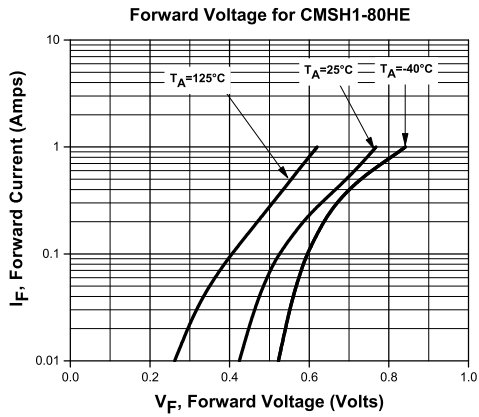
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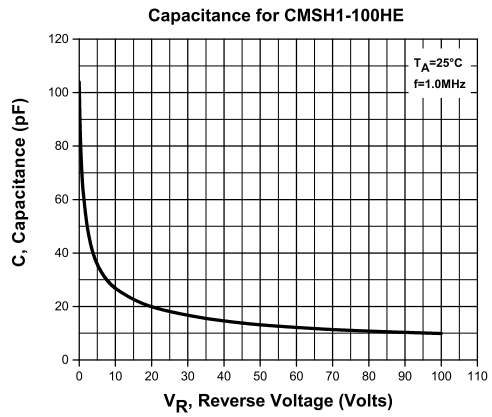
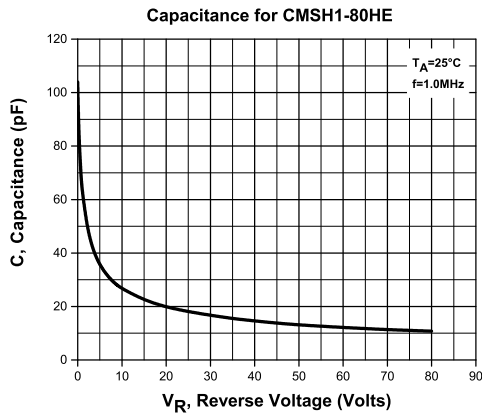
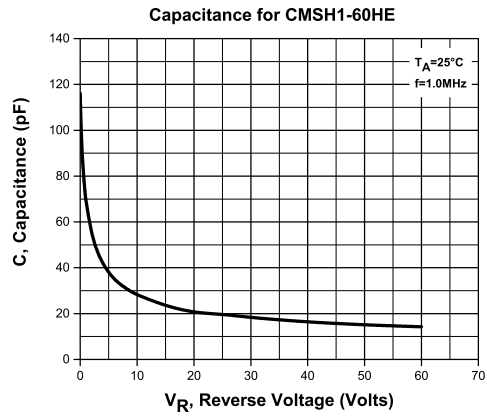
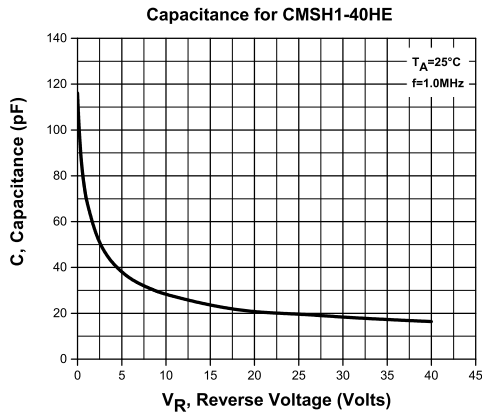
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**TYPICAL ELECTRICAL CHARACTERISTICS**



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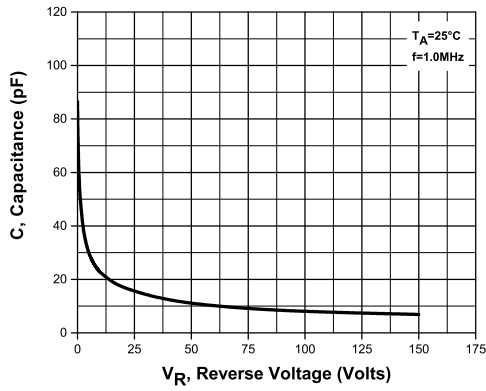
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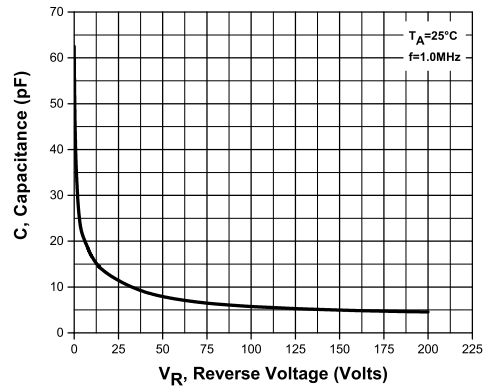
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TYPICAL ELECTRICAL CHARACTERISTICS

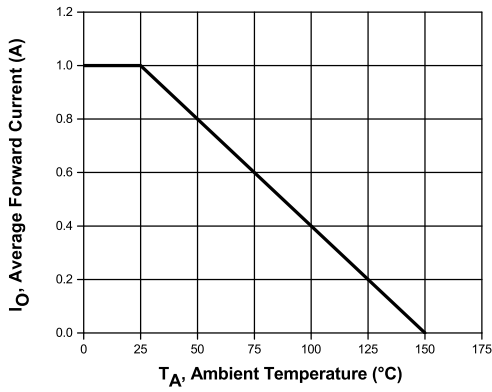
Capacitance for CMSH1-150HE



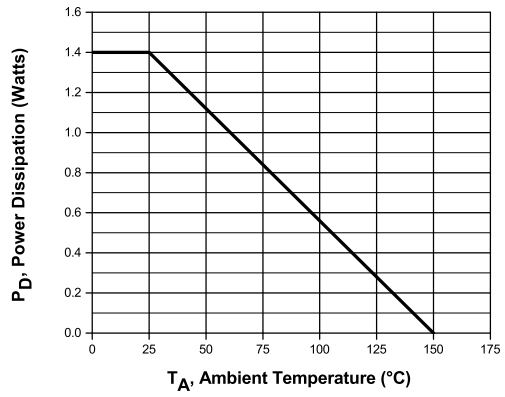
Capacitance for CMSH1-200HE



Current Derating



Power Derating



R3 (24-November 2015)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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
- Custom product packing

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### 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
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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145 Adams Avenue  
Hauppauge, NY 11788 USA  
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Main Fax: (631) 435-1824  
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[www.centrasemi.com](http://www.centrasemi.com)

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[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.