

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

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



SMA CASE



www.centralemi.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

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	θ_{JA}				89			$^\circ\text{C/W}$
Thermal Resistance	θ_{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	μA
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

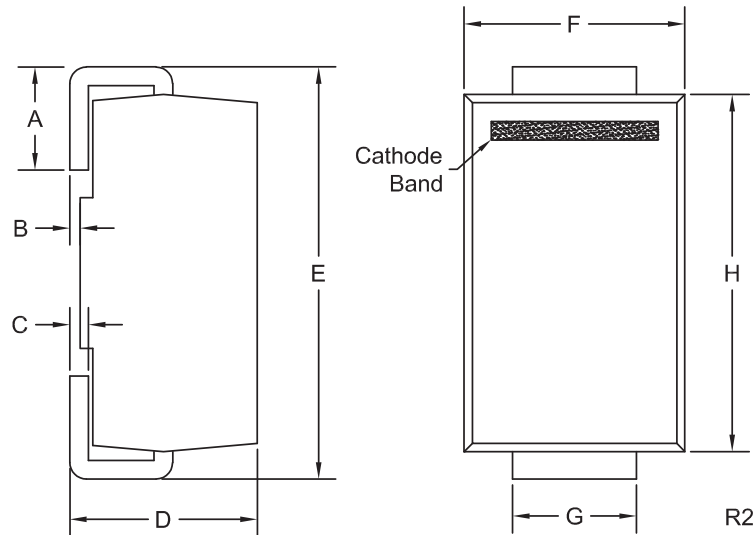
R3 (24-November 2015)

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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

DIMENSIONS				
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)

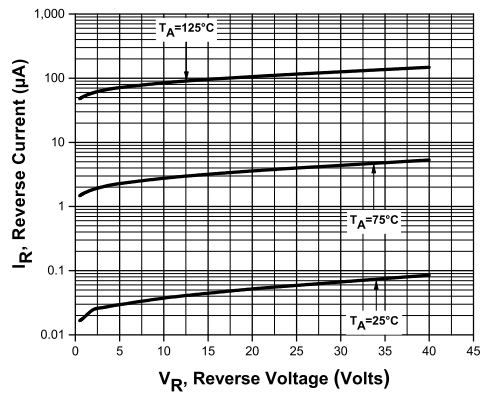
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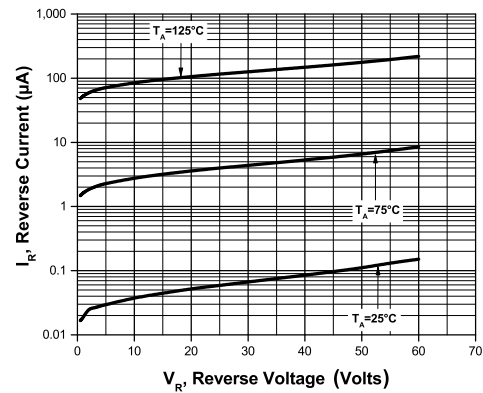
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TYPICAL ELECTRICAL CHARACTERISTICS

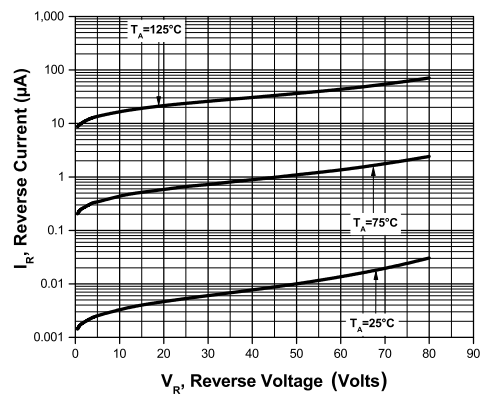
Leakage Current for CMSH1-40HE



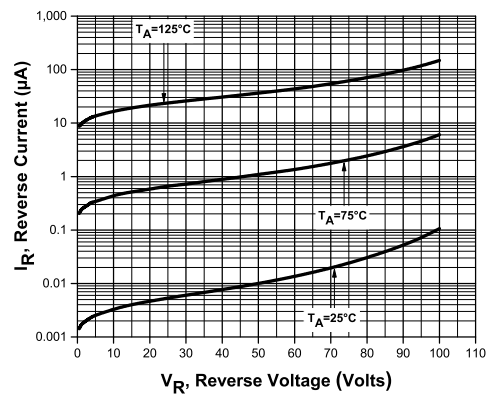
Leakage Current for CMSH1-60HE



Leakage Current for CMSH1-80HE



Leakage Current for CMSH1-100HE



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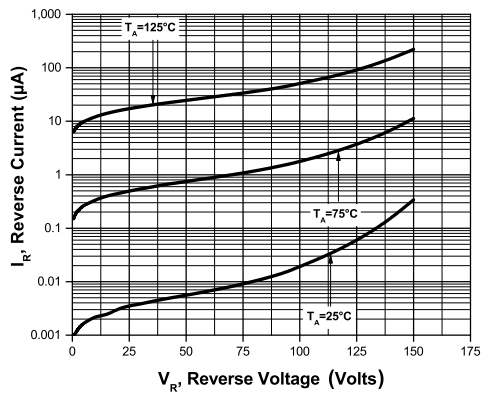
CM SH1-40HE C M SH1-100HE
 C M SH1-60HE C M SH1-150HE
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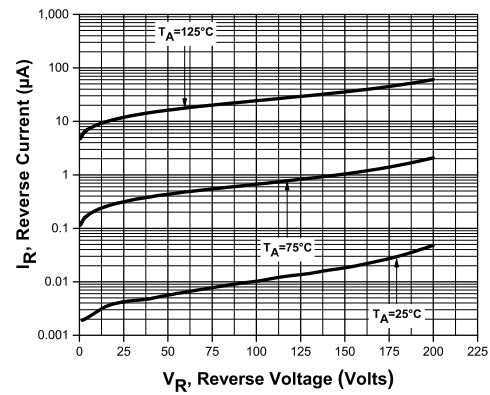


TYPICAL ELECTRICAL CHARACTERISTICS

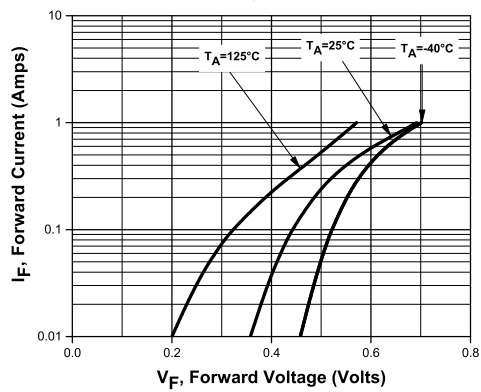
Leakage Current for C M SH1-150HE



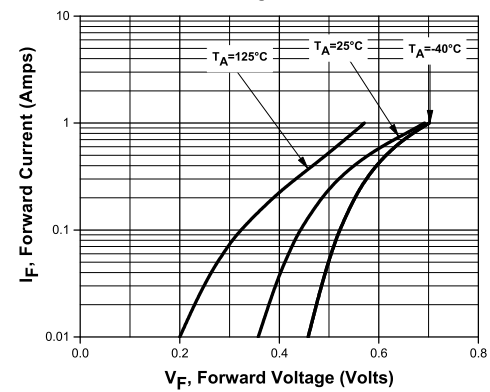
Leakage Current for C M SH1-200HE



Forward Voltage for C M SH1-40HE



Forward Voltage for C M SH1-60HE



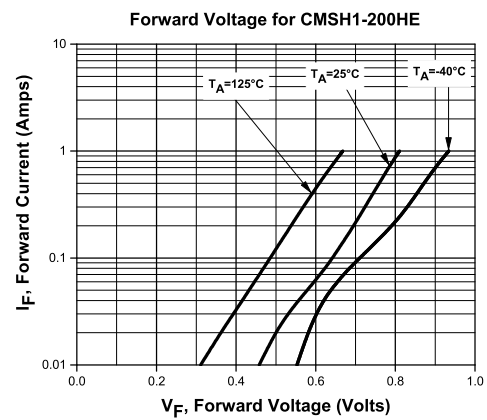
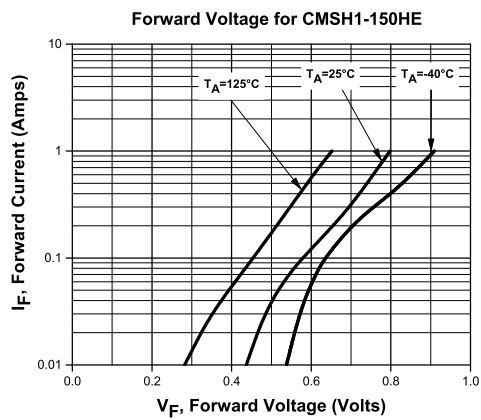
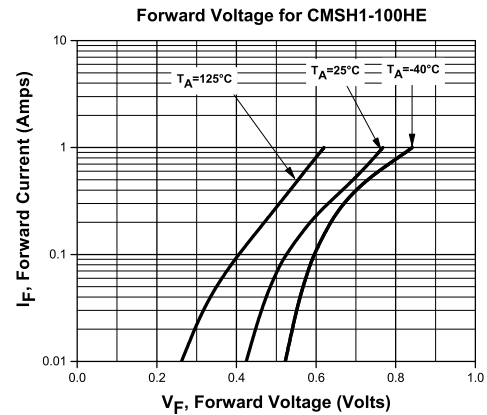
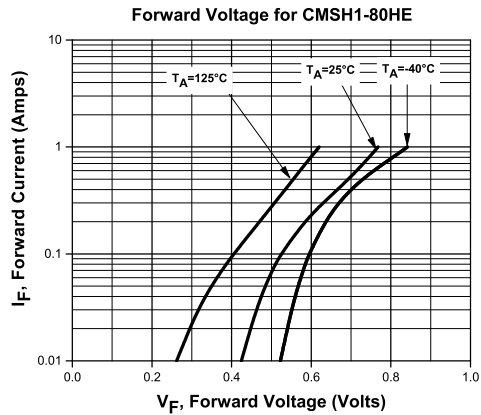
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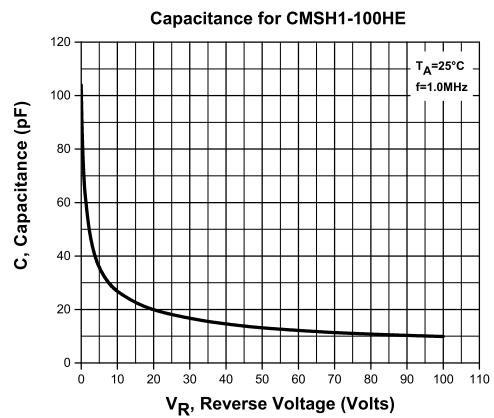
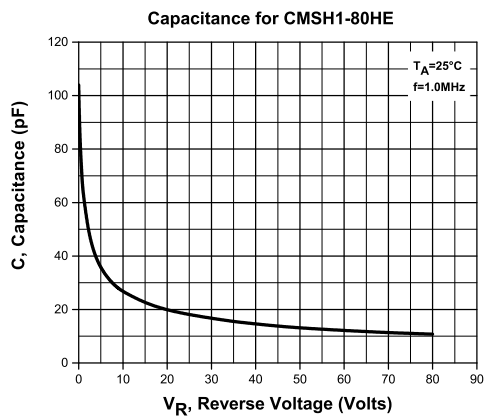
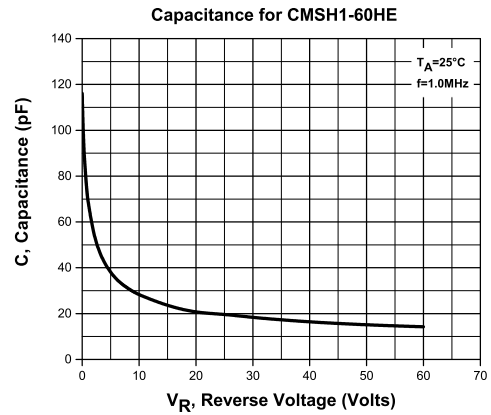
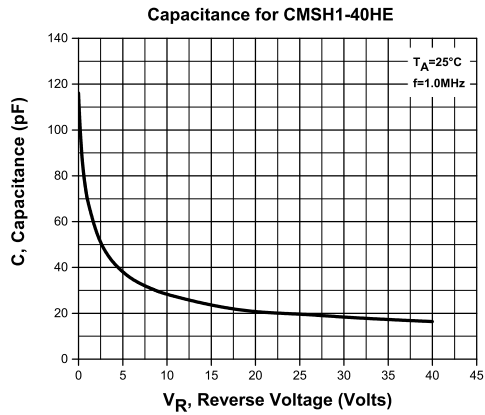
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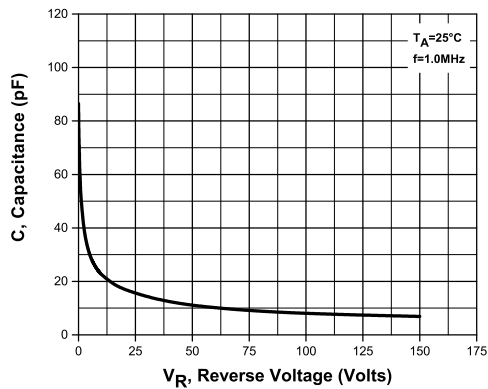
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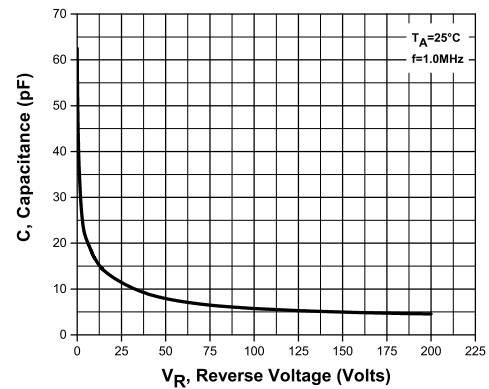
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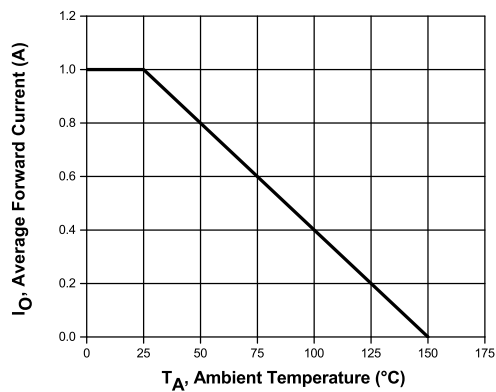
Capacitance for CMSH1-150HE



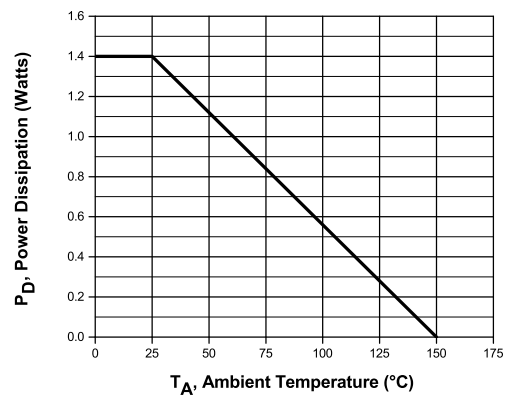
Capacitance for CMSH1-200HE



Current Derating



Power Derating



R3 (24-November 2015)

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
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd 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

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).

CONTACT US

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