



**THE DATASHEET OF
CMSH1-40 TR13**



CMSH1-20 CMSH1-60
 CMSH1-40 CMSH1-100

**SURFACE MOUNT SILICON
 SCHOTTKY RECTIFIERS
 1.0 AMP, 20 THRU 100 VOLT**



SMB CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSH1-20 series 1.0 Amp surface mount silicon rectifier is a high quality, well constructed, highly reliable 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
- Special selections available

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

| | SYMBOL | CMSH1 -20 | CMSH1 -40 | CMSH1 -60 | CMSH1 -100 | UNITS |
|--|----------------|--------------|--------------|--------------|---------------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 20 | 40 | 60 | 100 | V |
| DC Blocking Voltage | V_R | 20 | 40 | 60 | 100 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 14 | 28 | 42 | 70 | V |
| Average Forward Current ($T_A=75^\circ\text{C}$) | I_O | | | 1.0 | | A |
| Peak Forward Surge Current, $t_p=8.3\text{ms}$ | I_{FSM} | | | 30 | | A |
| Operating and Storage Junction Temperature | T_J, T_{stg} | | | -65 to +150 | | $^\circ\text{C}$ |
| Thermal Resistance | θ_{JL} | | | 20 | | $^\circ\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS | TYP | MAX | UNITS |
|--------|--|------|------|-------|
| I_R | $V_R=\text{Rated } V_{RRM}$ | | 0.50 | mA |
| I_R | $V_R=\text{Rated } V_{RRM}, T_A=125^\circ\text{C}$ | | 20 | mA |
| V_F | $I_F=1.0\text{A (CMSH1-20)}$ | 0.46 | 0.55 | V |
| V_F | $I_F=1.0\text{A (CMSH1-40)}$ | 0.48 | 0.55 | V |
| V_F | $I_F=1.0\text{A (CMSH1-60)}$ | 0.48 | 0.70 | V |
| V_F | $I_F=1.0\text{A (CMSH1-100)}$ | 0.75 | 0.85 | V |
| C_J | $V_R=4.0\text{V}, f=1.0\text{MHz, (CMSH1-20)}$ | 68 | | pF |
| C_J | $V_R=4.0\text{V}, f=1.0\text{MHz, (CMSH1-40)}$ | 56 | | pF |
| C_J | $V_R=4.0\text{V}, f=1.0\text{MHz, (CMSH1-60)}$ | 42 | | pF |
| C_J | $V_R=4.0\text{V}, f=1.0\text{MHz, (CMSH1-100)}$ | 45 | | pF |

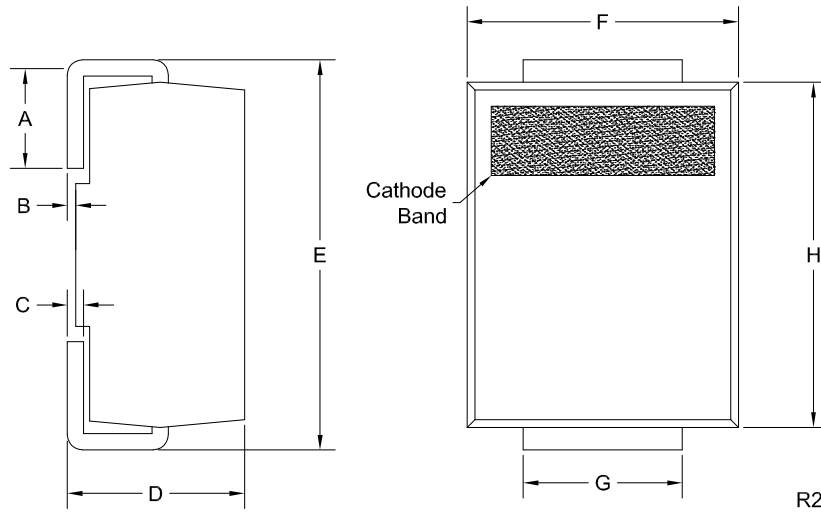
R5 (6-September 2018)

CMSH1-20 CMSH1-60
 CMSH1-40 CMSH1-100

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SMB CASE - MECHANICAL OUTLINE



| DEVICE | MARKING CODE |
|-----------|--------------|
| CMSH1-20 | CS20 |
| CMSH1-40 | CS40 |
| CMSH1-60 | CS60 |
| CMSH1-100 | CS100 |

| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.030 | 0.060 | 0.76 | 1.52 |
| B | 0.000 | 0.008 | 0.00 | 0.20 |
| C | 0.006 | 0.012 | 0.15 | 0.30 |
| D | 0.086 | 0.096 | 2.18 | 2.44 |
| E | 0.200 | 0.220 | 5.08 | 5.59 |
| F | 0.130 | 0.150 | 3.30 | 3.81 |
| G | 0.077 | 0.083 | 1.96 | 2.11 |
| H | 0.160 | 0.191 | 4.06 | 4.85 |

SMB (REV: R2)

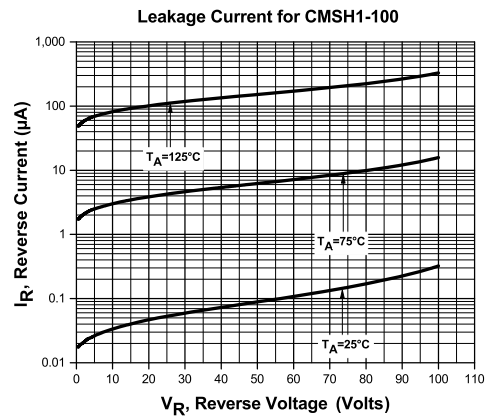
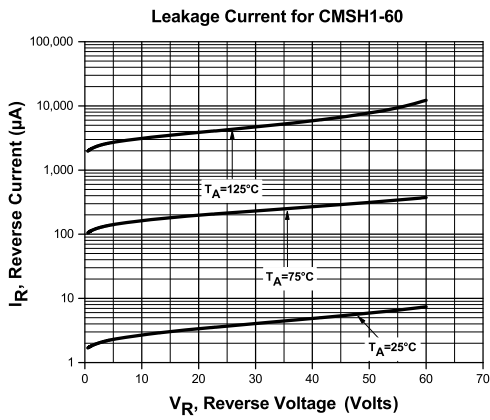
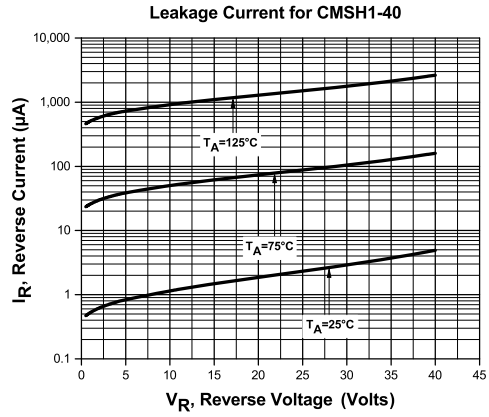
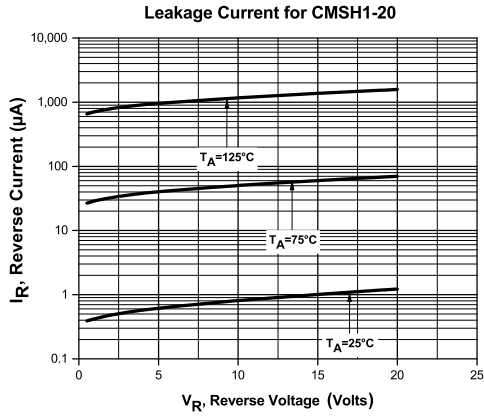
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TYPICAL ELECTRICAL CHARACTERISTICS



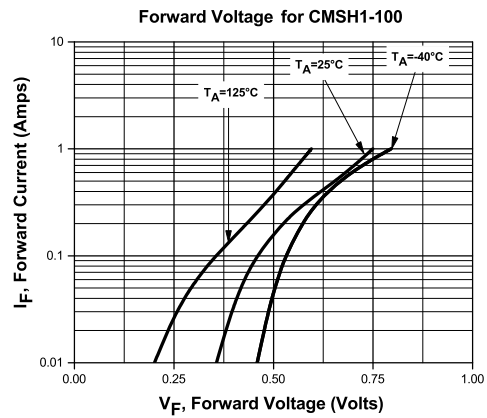
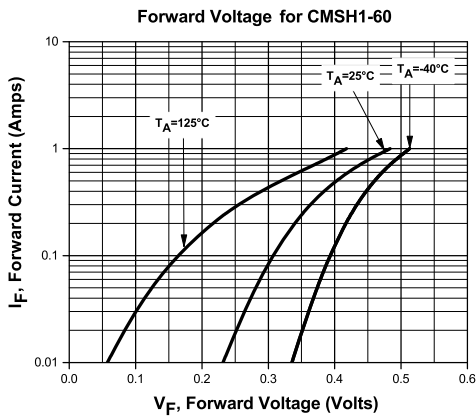
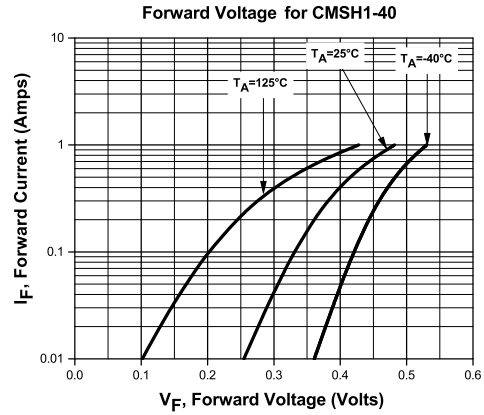
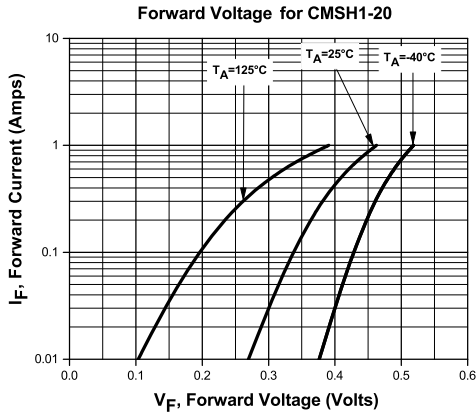
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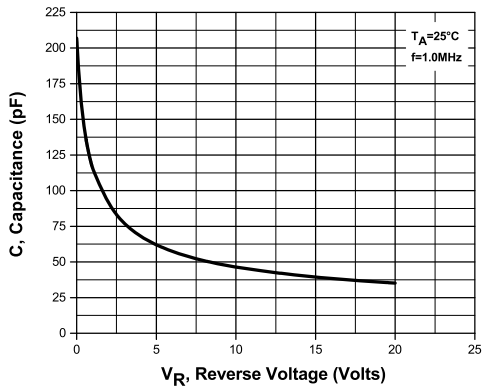
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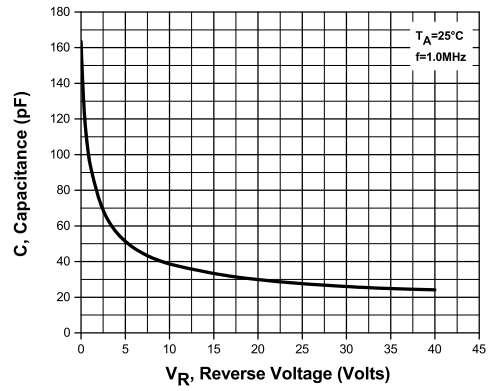


TYPICAL ELECTRICAL CHARACTERISTICS

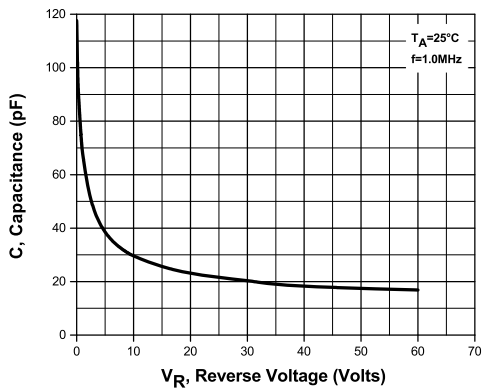
Capacitance for CMSH1-20



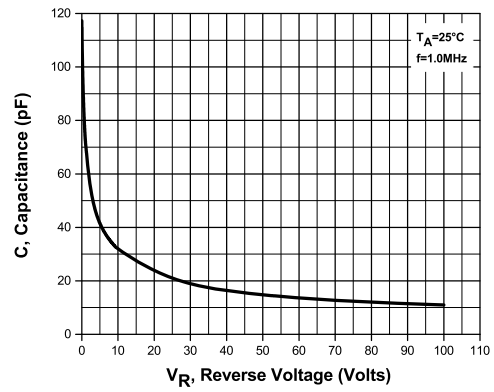
Capacitance for CMSH1-40



Capacitance for CMSH1-60



Capacitance for CMSH1-100



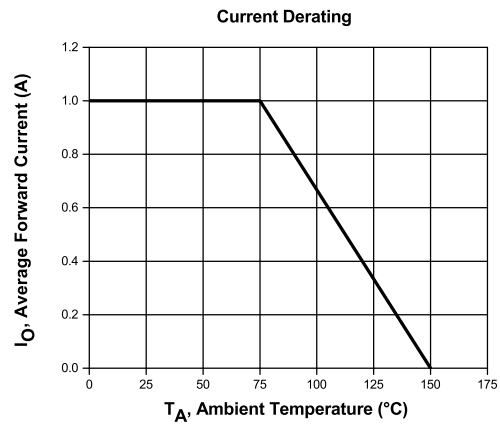
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TYPICAL ELECTRICAL CHARACTERISTICS



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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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- [Central Semiconductor Corp Information](#)

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- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management