

CMSH5-100HV
CMSH5-150HV
CMSH5-200HV

**SURFACE MOUNT SILICON
SCHOTTKY RECTIFIERS
5.0 AMP, 100 THRU 200 VOLT**



SMC CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSH5-100HV series 5.0 Amp surface mount silicon Schottky rectifiers are highly reliable components designed for use in all types of commercial, industrial, entertainment, computer, and lighting applications. To order devices on 16mm Tape and Reel (3000/13" Reel), add TR13 suffix to part number.

MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE

FEATURES:

- High voltage capability
- High reliability
- Energy efficiency
- Flammability classification UL94V-0
- "C" bend construction provides strain relief when mounted on PC board

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

| | SYMBOL | CMSH5 -100HV | CMSH5 -150HV | CMSH5 -200HV | UNITS |
|--|-------------------|-----------------|-----------------|-----------------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 100 | 150 | 200 | V |
| DC Blocking Voltage | V_R | 100 | 150 | 200 | V |
| RMS Reverse Voltage | $V_R(\text{RMS})$ | 70 | 105 | 140 | V |
| Average Forward Current ($T_L=75^\circ\text{C}$) | I_O | | 5.0 | | A |
| Peak Forward Surge Current, $t_p=8.3\text{ms}$ | I_{FSM} | | 100 | | A |
| Operating and Storage Junction Temperature | T_J, T_{stg} | | -65 to +175 | | $^\circ\text{C}$ |
| Thermal Resistance (Note 1) | θ_{JA} | | 50 | | $^\circ\text{C/W}$ |
| Thermal Resistance (Note 1) | θ_{JL} | | 10 | | $^\circ\text{C/W}$ |

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 | $V_R=\text{Rated } V_{RRM}, T_J=100^\circ\text{C}$ | | 10 | mA |
| V_F | $I_F=5.0\text{A (CMSH5-100HV)}$ | 0.76 | 0.80 | V |
| V_F | $I_F=5.0\text{A (CMSH5-150HV)}$ | 0.80 | 0.90 | V |
| V_F | $I_F=5.0\text{A (CMSH5-200HV)}$ | 0.82 | 0.90 | V |
| C_J | $V_R=0, f=1.0\text{MHz (CMSH5-100HV)}$ | 498 | | pF |
| C_J | $V_R=0, f=1.0\text{MHz (CMSH5-150HV)}$ | 451 | | pF |
| C_J | $V_R=0, f=1.0\text{MHz (CMSH5-200HV)}$ | 334 | | pF |

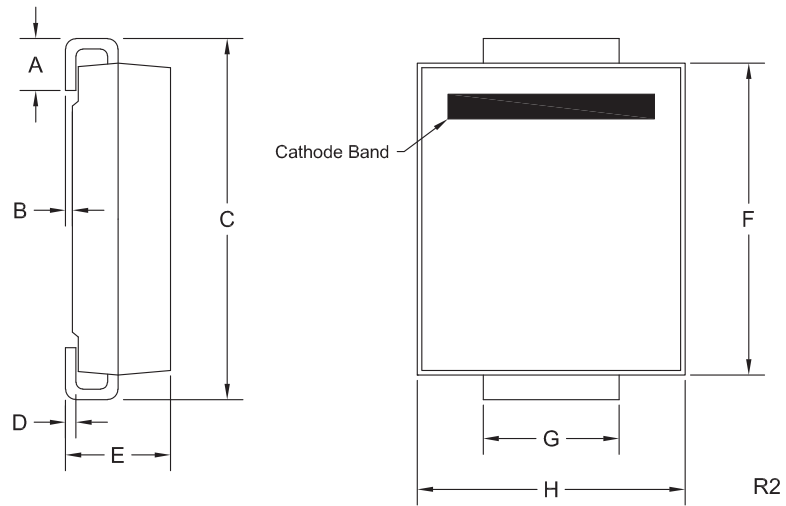
Note 1: FR-4 epoxy PCB with copper mounting pad area of 25.4mm².

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SMC CASE - MECHANICAL OUTLINE



| DEVICE | MARKING CODE |
|-------------|--------------|
| CMSH5-100HV | CS510HV |
| CMSH5-150HV | CS515HV |
| CMSH5-200HV | CS520HV |

| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.030 | 0.060 | 0.76 | 1.52 |
| B | 0.002 | 0.008 | 0.05 | 0.20 |
| C | 0.305 | 0.320 | 7.75 | 8.13 |
| D | 0.006 | 0.012 | 0.15 | 0.31 |
| E | 0.079 | 0.103 | 2.00 | 2.62 |
| F | 0.260 | 0.280 | 6.60 | 7.11 |
| G | 0.108 | 0.128 | 2.75 | 3.25 |
| H | 0.220 | 0.245 | 5.59 | 6.22 |

SMC (REV: R2)

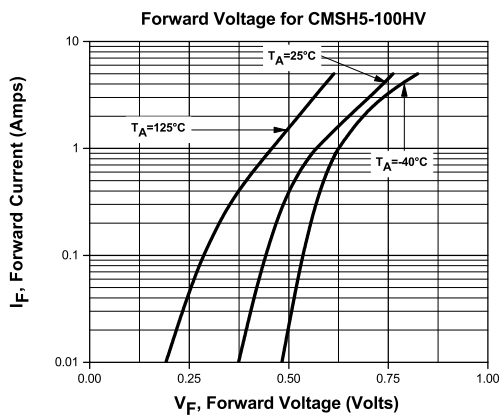
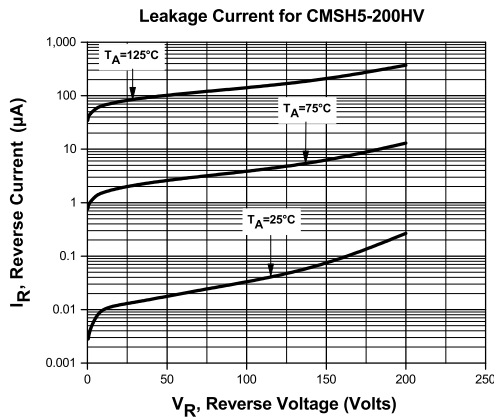
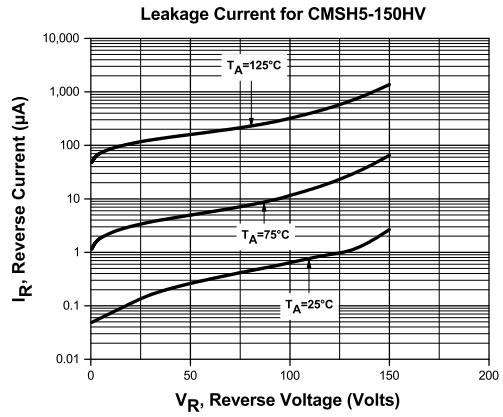
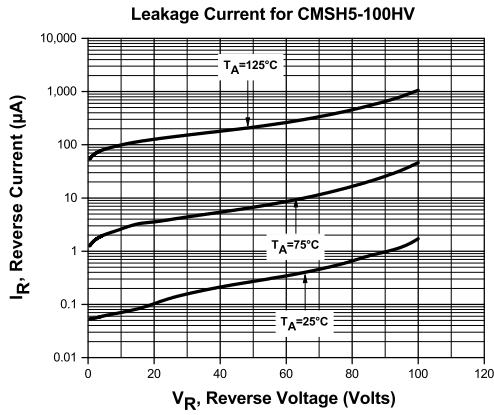
R4 (22-December 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



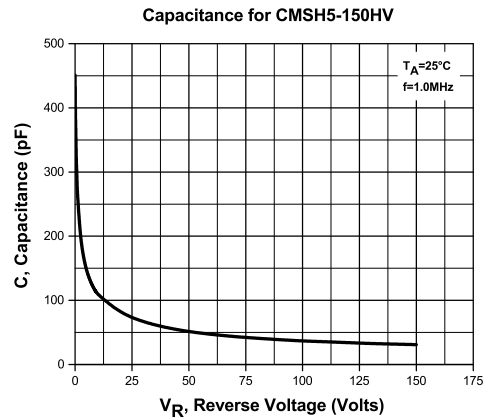
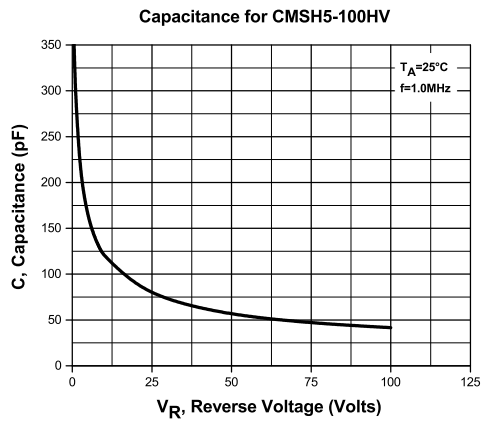
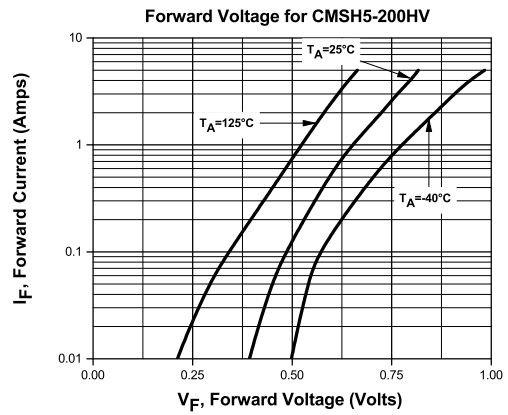
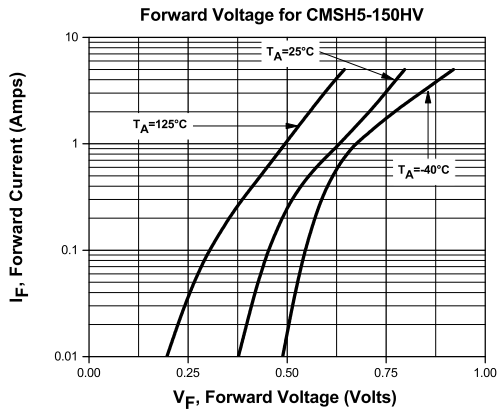
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TYPICAL ELECTRICAL CHARACTERISTICS



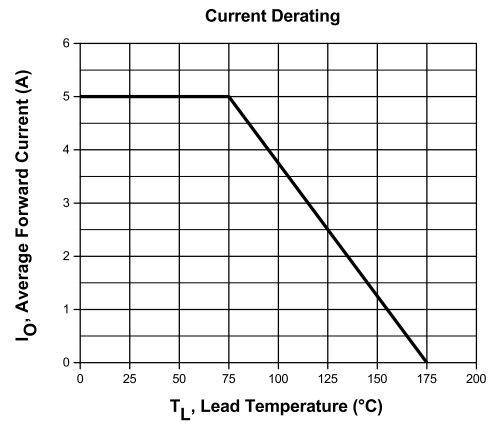
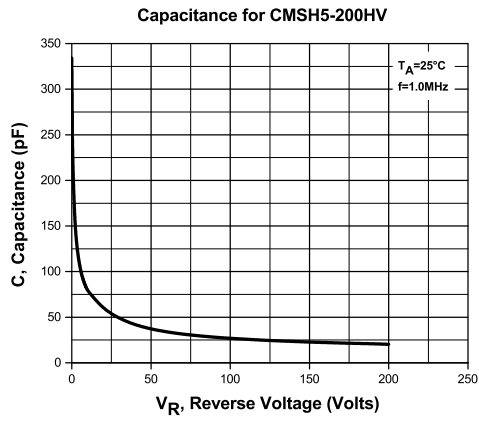
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TYPICAL ELECTRICAL CHARACTERISTICS



R4 (22-December 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

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