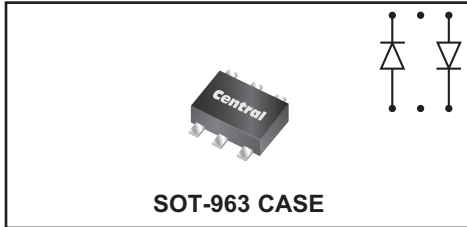


CMRSH-4DO
**SURFACE MOUNT SILICON
DUAL, ISOLATED, OPPOSING
SCHOTTKY DIODE**



www.centrasemi.com

DESCRIPTION: The CENTRAL SEMICONDUCTOR CMRSH-4DO are dual, isolated, opposing high quality Schottky diodes designed for applications where very small size and operational efficiency are prime requirements.



MARKING CODE: CV

FEATURES:

- Current ($I_O=200\text{mA}$)
- Low forward voltage drop ($V_F=0.35\text{V TYP @ } 1.0\text{mA}$)
- Low reverse current ($25\text{nA TYP @ } 30\text{V}$)
- Extremely fast switching (5.0ns MAX)
- Small $1.0 \times 1.0 \times 0.5\text{mm SOT-963}$ surface mount package
- Versatile multi-configurable device

APPLICATIONS:

- DC-DC converters
- Voltage clamping
- Protection circuits
- Battery charging circuits

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

Peak Repetitive Reverse Voltage
Average Forward Current
Peak Forward Surge Current, $t_p=8.3\text{ms}$
Power Dissipation
Operating Junction Temperature
Storage Temperature
Thermal Resistance

| SYMBOL | | UNITS |
|---------------|-------------|--------------------|
| V_{RRM} | 40 | V |
| I_O | 200 | mA |
| I_{FSM} | 600 | mA |
| P_D | 125 | mW |
| T_J | -65 to +125 | $^\circ\text{C}$ |
| T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Θ_{JA} | 800 | $^\circ\text{C/W}$ |

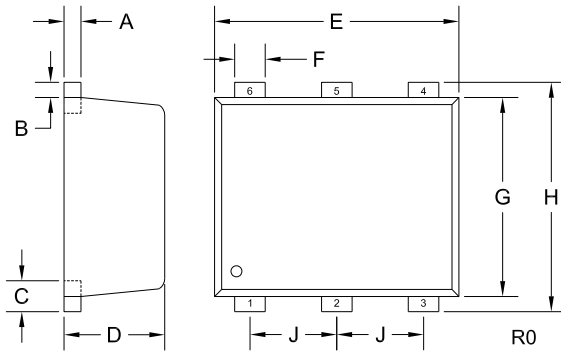
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|----------|---|-----|------|------|-------|
| I_R | $V_R=30\text{V}$ | | 25 | 200 | nA |
| BV_R | $I_R=10\mu\text{A}$ | 40 | | | V |
| V_F | $I_F=1.0\text{mA}$ | | 0.35 | 0.38 | V |
| V_F | $I_F=15\text{mA}$ | | 0.55 | 0.65 | V |
| V_F | $I_F=40\text{mA}$ | | 0.77 | 1.00 | V |
| C_J | $V_R=0, f=1.0\text{MHz}$ | | | 5.0 | pF |
| t_{rr} | $I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ | | | 5.0 | ns |

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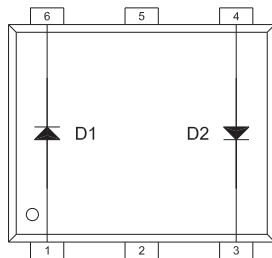
SOT-963 CASE - MECHANICAL OUTLINE



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|-------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.002 | 0.006 | 0.050 | 0.150 |
| B | 0.002 | 0.006 | 0.050 | 0.150 |
| C | 0.005 | 0.007 | 0.125 | 0.175 |
| D | 0.016 | 0.020 | 0.400 | 0.500 |
| E | 0.037 | 0.041 | 0.950 | 1.050 |
| F | 0.004 | 0.008 | 0.100 | 0.200 |
| G | 0.030 | 0.033 | 0.750 | 0.850 |
| H | 0.037 | 0.041 | 0.950 | 1.050 |
| J | 0.014 | | 0.350 | |

SOT-963 (REV: R0)

PIN CONFIGURATION

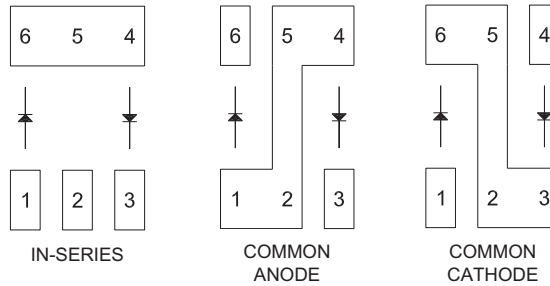


LEAD CODE:

- 1) Anode D1
- 2) NC
- 3) Cathode D2
- 4) Anode D2
- 5) NC
- 6) Cathode D1

MARKING CODE: CV

SUGGESTED MOUNTING PAD CONFIGURATIONS



Note:

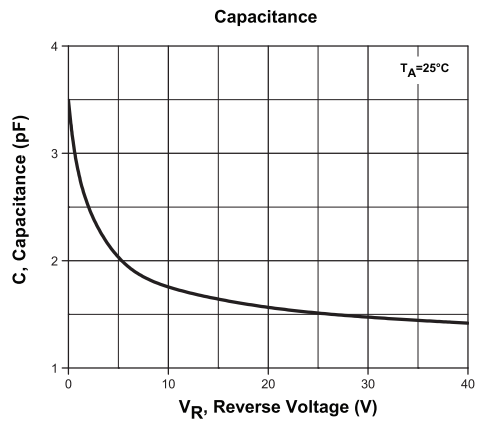
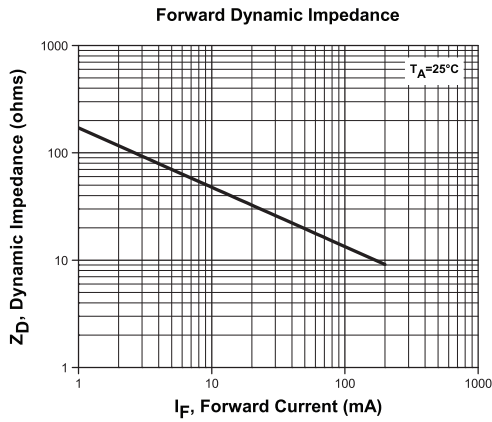
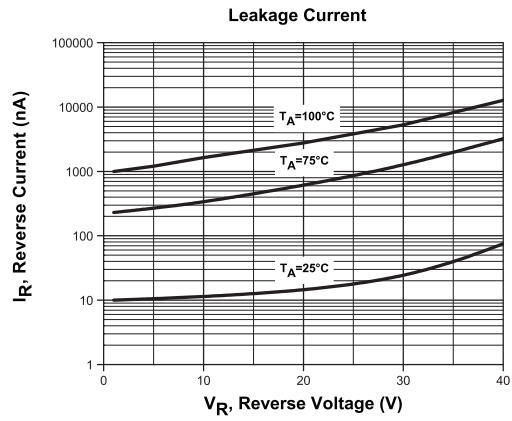
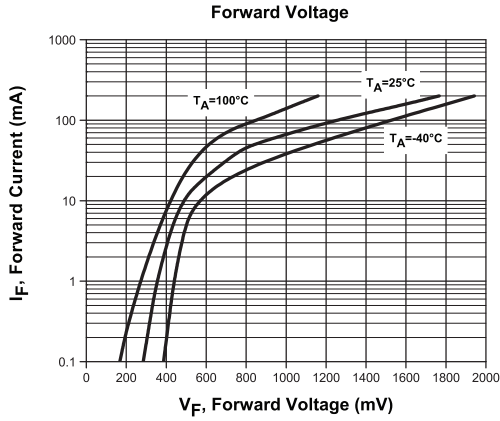
Two devices easily configurable as a bridge rectifier.

R2 (3-August 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS

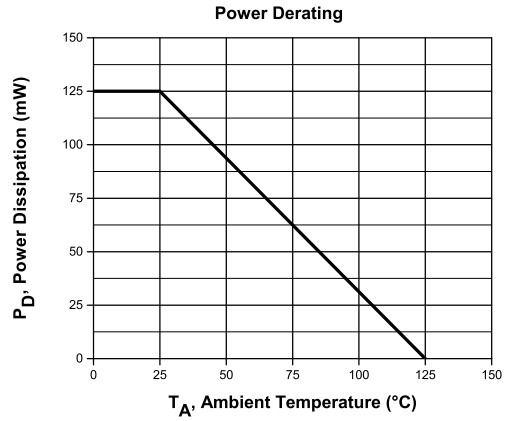
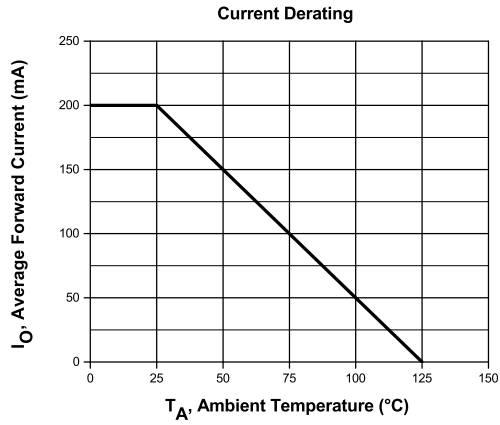


R2 (3-August 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



R2 (3-August 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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