CMSD2004S

SURFACE MOUNT DUAL, IN SERIES SILICON SWITCHING DIODES



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSD2004S type is a dual, in series silicon switching diode manufactured by the epitaxial planar process, designed for applications requiring high voltage capability.

MARKING CODE: B6D



| MAXIMUM RATINGS: (T _A =25°C) | SYMBOL | | UNITS |
|--|-----------------------------------|-------------|-------|
| Continuous Reverse Voltage | V_{R} | 300 | V |
| Peak Repetitive Reverse Voltage | V_{RRM} | 300 | V |
| Peak Repetitive Reverse Current | I _{RRM} | 200 | mA |
| Continuous Forward Current | l _F | 225 | mA |
| Peak Repetitive Forward Current | I _{FRM} | 625 | mA |
| Peak Forward Surge Current, tp=1.0µs | I _{FSM} | 4.0 | Α |
| Peak Forward Surge Current, tp=1.0s | I _{FSM} | 1.0 | Α |
| Power Dissipation | P_{D} | 275 | mW |
| Operating and Storage Junction Temperature | T _J , T _{stg} | -65 to +150 | °C |
| Thermal Resistance | Θ_{JA} | 455 | °C/W |

ELECTRICAL CHARACTERISTICS PER DIODE: (T_A=25°C unless otherwise noted)

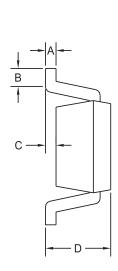
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|---------------------------------------|--|-----|-----|-------|--|
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS | |
| I_{R} | V _R =240V | | 100 | nA | |
| I_{R} | V _R =240V, T _A =150°C | | 100 | μΑ | |
| BV_R | I _R =100μA | 300 | | V | |
| V_{F} | I _F =100mA | | 1.0 | V | |
| C _T | V _R =0, f=1.0MHz | | 5.0 | pF | |
| t _{rr} | $I_F = I_R = 30 \text{mA}, I_{rr} = 3.0 \text{mA}, R_I = 100 \Omega$ | | 50 | ns | |

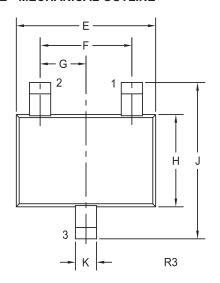
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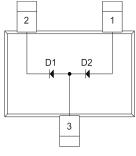


SOT-323 CASE - MECHANICAL OUTLINE





PIN CONFIGURATION



LEAD CODE:

- 1) Anode D2
- 2) Cathode D1
- 3) Anode D1, Cathode D2

MARKING CODE: B6D

| DIMENSIONS | | | | | | | |
|------------|--------|-------|-------------|------|--|--|--|
| | INCHES | | MILLIMETERS | | | | |
| SYMBOL | MIN | MAX | MIN | MAX | | | |
| Α | 0.002 | 0.008 | 0.05 | 0.20 | | | |
| В | 0.004 | - | 0.10 | - | | | |
| С | - | 0.004 | - | 0.10 | | | |
| D | 0.031 | 0.043 | 0.80 | 1.10 | | | |
| Е | 0.071 | 0.087 | 1.80 | 2.20 | | | |
| F | 0.051 | | 1.30 | | | | |
| G | 0.026 | | 0.65 | | | | |
| Н | 0.045 | 0.053 | 1.15 | 1.35 | | | |
| J | 0.079 | 0.087 | 2.00 | 2.20 | | | |
| K | 0.008 | 0.016 | 0.20 | 0.40 | | | |

SOT-323 (REV: R3)

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 guick 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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