

**CMP SH-3CG****SURFACE MOUNT  
DUAL, COMMON CATHODE  
SILICON SCHOTTKY DIODES**[www.centrasemi.com](http://www.centrasemi.com)**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMP SH-3CG is a dual, common cathode Silicon Schottky diode designed for surface mount fast switching applications requiring a low forward voltage drop.

**MARKING CODE: DB2G****SOT-23 CASE**

• Device is **Halogen Free** by design

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

|   |
|---|
| Peak Repetitive Reverse Voltage               |
| Continuous Forward Current                    |
| Peak Repetitive Forward Current               |
| Peak Forward Surge Current, $t_p=10\text{ms}$ |
| Power Dissipation                             |
| Operating and Storage Junction Temperature    |
| Thermal Resistance                            |

**SYMBOL**

|                |             |
|----------------|-------------|
| $V_{RRM}$      | 30          |
| $I_F$          | 100         |
| $I_{FRM}$      | 350         |
| $I_{FSM}$      | 750         |
| $P_D$          | 350         |
| $T_J, T_{stg}$ | -65 to +150 |
| $\theta_{JA}$  | 357         |

**UNITS**

|                           |
|---------------------------|
| V                         |
| mA                        |
| mA                        |
| mA                        |
| mW                        |
| $^\circ\text{C}$          |
| $^\circ\text{C}/\text{W}$ |

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

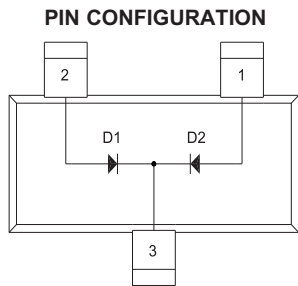
| SYMBOL   | TEST CONDITIONS   | MIN | TYP  | MAX  | UNITS         |
|----------|---|-----|------|------|---------------|
| $I_R$    | $V_R=25\text{V}$  |     | 90   | 500  | nA            |
| $I_R$    | $V_R=25\text{V}, T_A=100^\circ\text{C}$                   |     | 25   | 100  | $\mu\text{A}$ |
| $BV_R$   | $I_R=100\mu\text{A}$                                      | 30  |      |      | V             |
| $V_F$    | $I_F=2.0\text{mA}$  |     | 0.29 | 0.33 | V             |
| $V_F$    | $I_F=15\text{mA}$   |     | 0.40 | 0.45 | V             |
| $V_F$    | $I_F=100\text{mA}$  |     | 0.74 | 1.00 | V             |
| $C_T$    | $V_R=1.0\text{V}, f=1.0\text{MHz}$                        |     | 7.0  |      | pF            |
| $t_{rr}$ | $I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ |     |      | 5.0  | ns            |

R1 (27-January 2010)

**CMP5H-3CG**  
**SURFACE MOUNT**  
**DUAL, COMMON CATHODE**  
**SILICON SCHOTTKY DIODES**



**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**  
 1) Anode D2  
 2) Anode D1  
 3) Cathode D1, D2

**MARKING CODE: DB2G**

| <b>DIMENSIONS</b> |        |       |             |      |
|-------------------|--------|-------|-------------|------|
| SYMBOL            | INCHES |       | MILLIMETERS |      |
|                   | MIN    | MAX   | MIN         | MAX  |
| A                 | 0.003  | 0.007 | 0.08        | 0.18 |
| B                 | 0.006  | -     | 0.15        | -    |
| C                 | -      | 0.005 | -           | 0.13 |
| D                 | 0.035  | 0.043 | 0.89        | 1.09 |
| E                 | 0.110  | 0.120 | 2.80        | 3.05 |
| F                 | 0.075  |       | 1.90        |      |
| G                 | 0.037  |       | 0.95        |      |
| H                 | 0.047  | 0.055 | 1.19        | 1.40 |
| I                 | 0.083  | 0.098 | 2.10        | 2.49 |
| J                 | 0.014  | 0.020 | 0.35        | 0.50 |

SOT-23 (REV: R3)

R1 (27-January 2010)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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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### 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).

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### CONTACT US

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