

**CMOSH-3**  
**SURFACE MOUNT SILICON**  
**SCHOTTKY DIODE**



**SOD-523 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMOSH-3 is a silicon Schottky diode, epoxy molded in an SOD-523 surface mount package, designed for fast switching applications requiring a low forward voltage drop.

**MARKING CODE: 53**

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

|   | SYMBOL         |             | UNITS              |
|---|----------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage               | $V_{RRM}$      | 30          | V                  |
| Continuous Forward Current                    | $I_F$          | 100         | mA                 |
| Peak Repetitive Forward Current               | $I_{FRM}$      | 350         | mA                 |
| Peak Forward Surge Current, $t_p=10\text{ms}$ | $I_{FSM}$      | 750         | mA                 |
| Power Dissipation                             | $P_D$          | 250         | mW                 |
| Operating and Storage Junction Temperature    | $T_J, T_{stg}$ | -65 to +150 | $^\circ\text{C}$   |
| Thermal Resistance                            | $\theta_{JA}$  | 500         | $^\circ\text{C/W}$ |

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

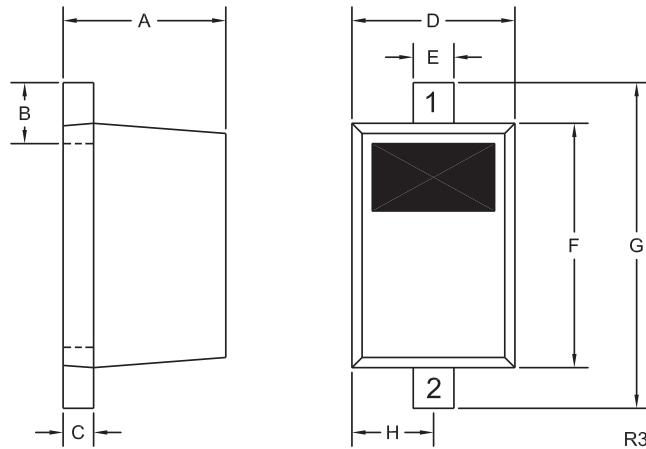
| SYMBOL   | TEST CONDITIONS   | MIN | TYP  | MAX  | UNITS         |
|----------|---|-----|------|------|---------------|
| $I_R$    | $V_R=25\text{V}$  |     | 90   | 500  | nA            |
| $I_R$    | $V_R=25\text{V}, T_A=100^\circ\text{C}$                   |     | 25   | 100  | $\mu\text{A}$ |
| $BV_R$   | $I_R=100\mu\text{A}$                                      | 30  |      |      | V             |
| $V_F$    | $I_F=2.0\text{mA}$  |     | 0.29 | 0.33 | V             |
| $V_F$    | $I_F=15\text{mA}$   |     | 0.37 | 0.45 | V             |
| $V_F$    | $I_F=100\text{mA}$  |     | 0.51 | 1.00 | V             |
| $C_J$    | $V_R=1.0\text{V}, f=1.0\text{MHz}$                        |     | 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            |

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**SOD-523 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Cathode
- 2) Anode

**MARKING CODE: 53**

| SYMBOL | DIMENSIONS |       |             |      |
|--------|------------|-------|-------------|------|
|        | INCHES     |       | MILLIMETERS |      |
|        | MIN        | MAX   | MIN         | MAX  |
| A      | 0.020      | 0.031 | 0.50        | 0.80 |
| B      | 0.008      | 0.016 | 0.20        | 0.40 |
| C      | 0.002      | 0.008 | 0.05        | 0.20 |
| D      | 0.028      | 0.035 | 0.70        | 0.90 |
| E      | 0.008      | 0.014 | 0.20        | 0.35 |
| F      | 0.039      | 0.055 | 1.00        | 1.40 |
| G      | 0.055      | 0.071 | 1.40        | 1.80 |
| H      | 0.016      |       | 0.40        |      |

SOD-523 (REV: R3)

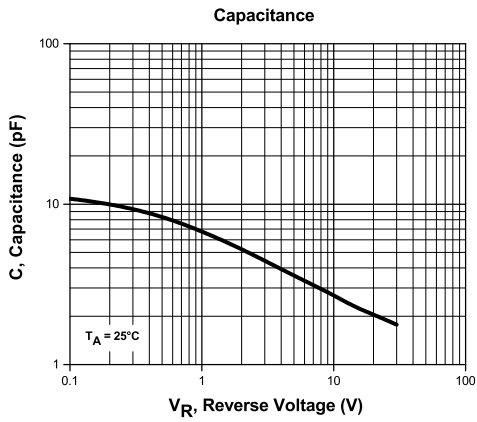
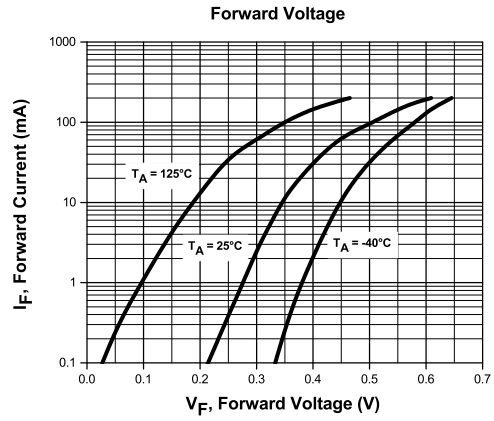
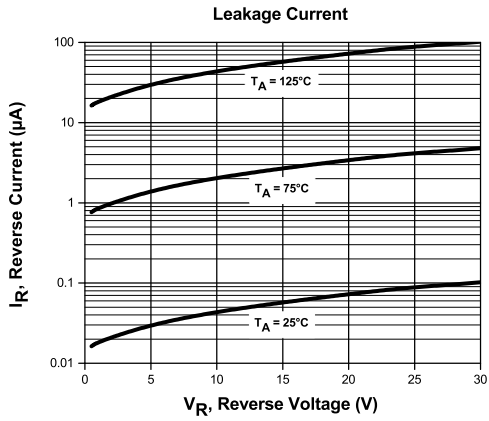
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**TYPICAL ELECTRICAL CHARACTERISTICS**



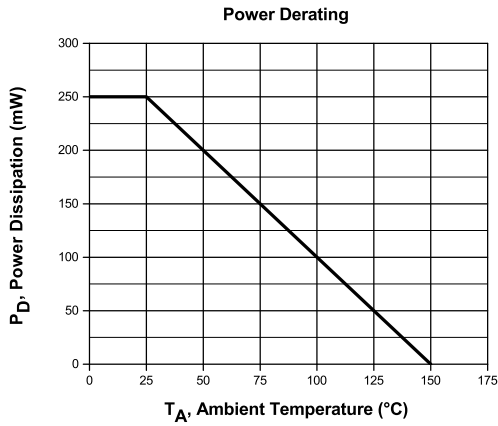
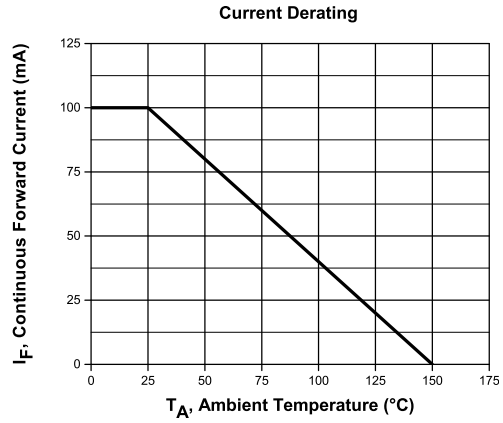
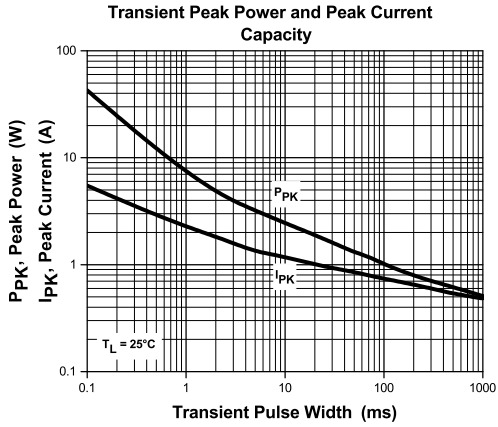
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**TYPICAL ELECTRICAL CHARACTERISTICS**



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## 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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