

CMPH-3  
CMPH-3A  
CMPH-3C  
CMPH-3S

**SURFACE MOUNT SILICON  
SCHOTTKY DIODES**



**SOT-23 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPH-3 series devices are silicon Schottky diodes designed for surface mount fast switching applications requiring a low forward voltage drop.

The following configurations are available:

CMPH-3 SINGLE  
CMPH-3A DUAL, COMMON ANODE  
CMPH-3C DUAL, COMMON CATHODE  
CMPH-3S DUAL, IN SERIES

**MARKING CODE: D95**  
**MARKING CODE: DB1**  
**MARKING CODE: DB2**  
**MARKING CODE: DA5**

**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                             | $P_D$          | 350         | mW                   |
| Operating and Storage Junction Temperature    | $T_J, T_{stg}$ | -65 to +150 | $^{\circ}\text{C}$   |
| Thermal Resistance                            | $\theta_{JA}$  | 357         | $^{\circ}\text{C/W}$ |

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

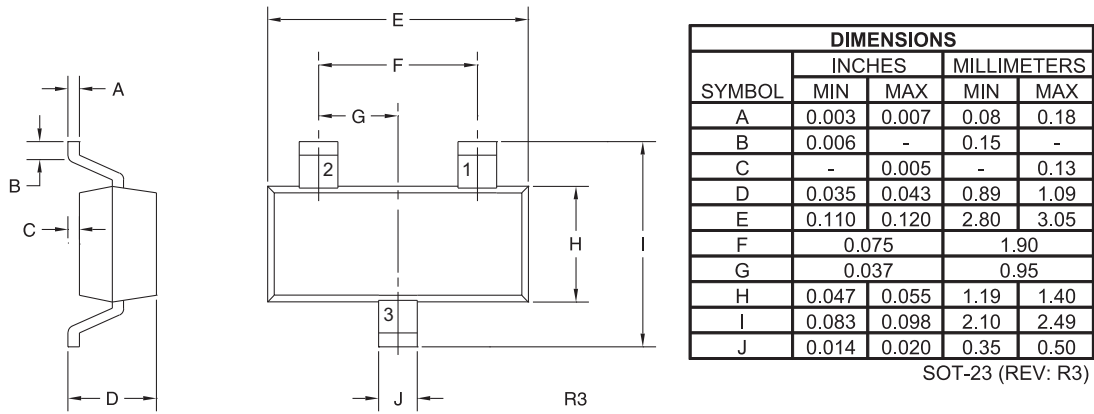
| SYMBOL   | TEST CONDITIONS                                           | MIN | TYP  | MAX  | UNITS         |
|----------|-----------------------------------------------------------|-----|------|------|---------------|
| $I_R$    | $V_R=25\text{V}$                                          |     | 90   | 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             |
| $C_J$    | $V_R=0, f=1.0\text{MHz}$                                  |     |      | 20   | 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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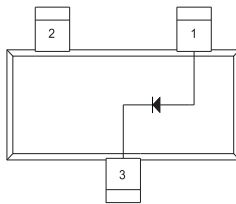
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## SOT-23 CASE - MECHANICAL OUTLINE



## PIN CONFIGURATIONS

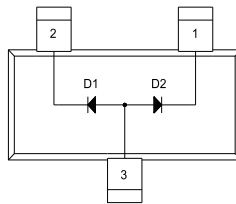


### CMPH-3

#### LEAD CODE:

- 1) Anode
- 2) No Connection
- 3) Cathode

MARKING CODE: D95

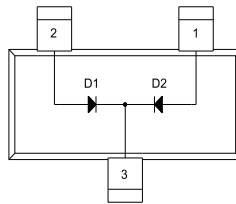


### CMPH-3A

#### LEAD CODE:

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

MARKING CODE: DB1

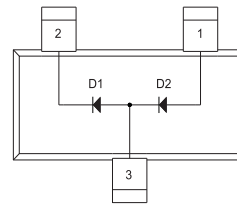


### CMPH-3C

#### LEAD CODE:

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

MARKING CODE: DB2



### CMPH-3S

#### LEAD CODE:

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

MARKING CODE: DA5

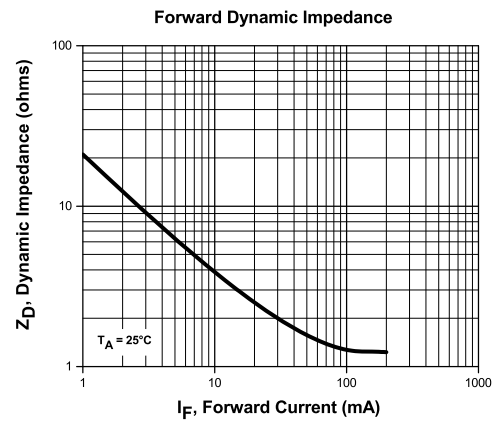
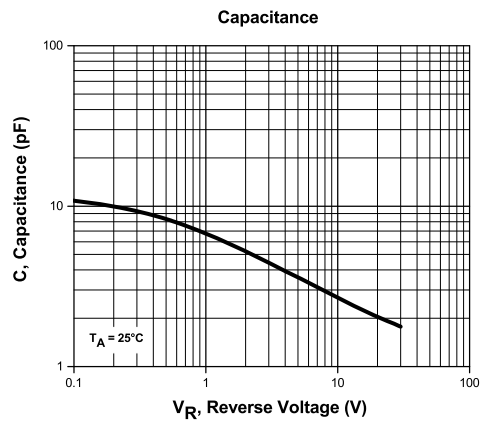
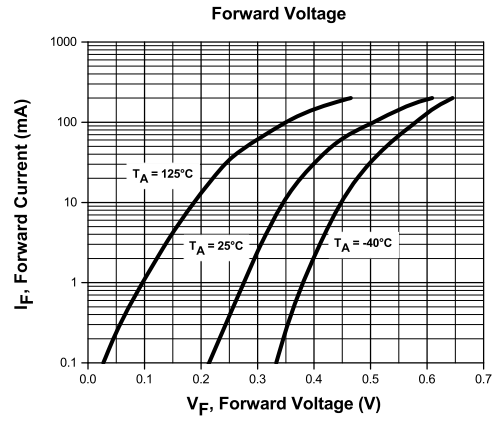
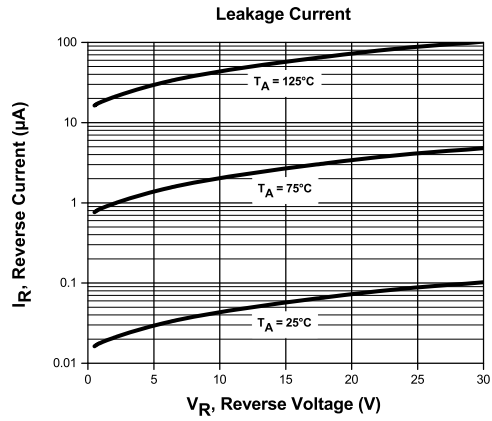
R8 (8-September 2016)

CMPH-3  
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## TYPICAL ELECTRICAL CHARACTERISTICS



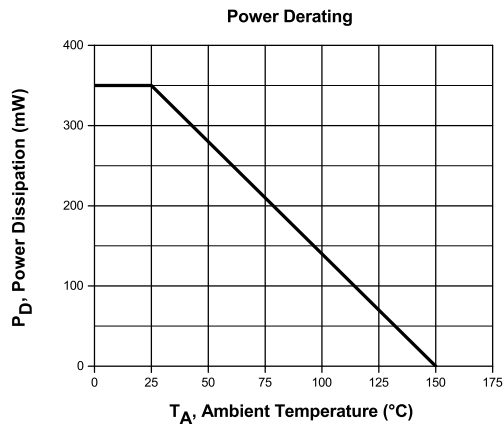
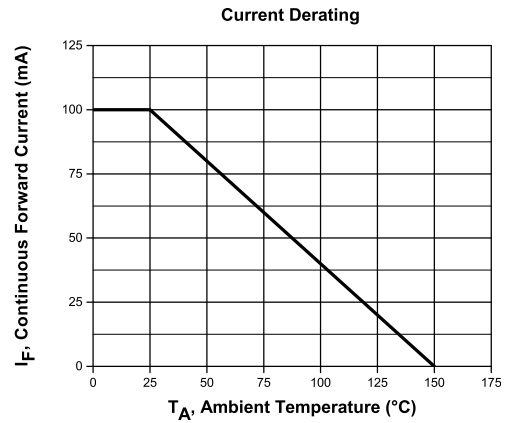
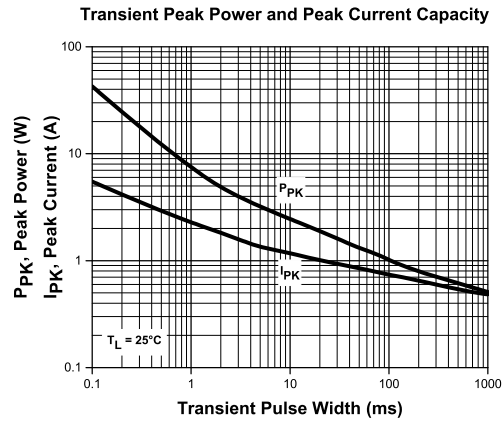
R8 (8-September 2016)

CMP SH-3  
CMP SH-3A  
CMP SH-3C  
CMP SH-3S

SURFACE MOUNT SILICON  
SCHOTTKY DIODES



## TYPICAL ELECTRICAL CHARACTERISTICS



R8 (8-September 2016)

## 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.

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- 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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### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centalsemi.com](http://www.centalsemi.com)

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