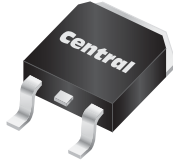


CSHDD16-40C CSHDD16-100C  
CSHDD16-60C CSHDD16-200C

**SURFACE MOUNT SILICON  
DUAL, COMMON CATHODE  
SCHOTTKY RECTIFIERS  
16 AMP, 40 THRU 200 VOLT**

**D<sup>2</sup>PAK!**  
SUPER POWER



**D<sup>2</sup>PAK CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CSHDD16-40C series devices are silicon Schottky rectifiers designed for surface mount applications requiring a low forward voltage drop.

**MARKING:**

**CSHDD16-40C: CSHDD16-40C or CSHDD16-40**  
**CSHDD16-60C: CSHDD16-60C or CSHDD16-60**  
**CSHDD16-100C: CSHDD16-100C or CSHDD16-100**  
**CSHDD16-200C: CSHDD16-200C or CSHDD16-200**

**FEATURES:**

- High reliability
- Low forward voltage
- High current capability
- High surge capacity
- UL flammability classification 94V-O
- Superior lot to lot consistency
- Low power loss, high efficiency
- High voltage

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

|                                                      | SYMBOL         | CSHDD16 |             |       |       | UNITS                |
|------------------------------------------------------|----------------|---------|-------------|-------|-------|----------------------|
|                                                      |                | -40C    | -60C        | -100C | -200C |                      |
| Peak Repetitive Reverse Voltage                      | $V_{RRM}$      | 40      | 60          | 100   | 200   | V                    |
| DC Blocking Voltage                                  | $V_R$          | 40      | 60          | 100   | 200   | V                    |
| RMS Reverse Voltage                                  | $V_{R(RMS)}$   | 28      | 42          | 70    | 140   | V                    |
| Average Forward Current ( $T_L=75^{\circ}\text{C}$ ) | $I_O$          |         |             | 16    |       | A                    |
| Peak Forward Surge Current, $t_p=8.3\text{ms}$       | $I_{FSM}$      |         |             | 150   |       | A                    |
| Operating and Storage Junction Temperature           | $T_J, T_{stg}$ |         | -65 to +175 |       |       | $^{\circ}\text{C}$   |
| Typical Thermal Resistance                           | $\theta_{JL}$  |         |             | 2.0   |       | $^{\circ}\text{C/W}$ |
| Typical Thermal Resistance                           | $\theta_{JA}$  |         |             | 50    |       | $^{\circ}\text{C/W}$ |

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

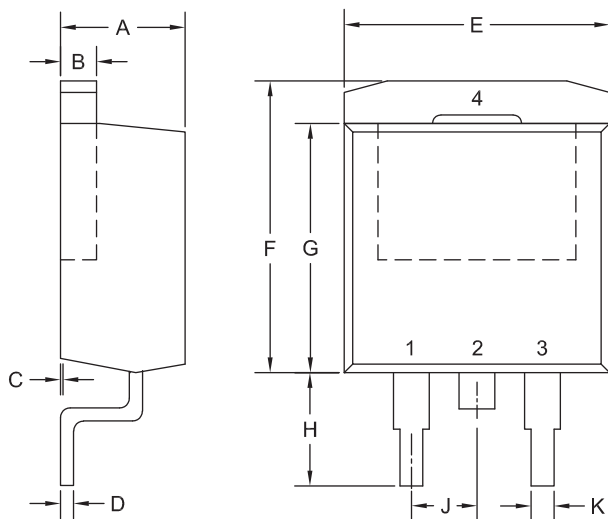
|                |                                                                | CSHDD16 |      |      |      |       |      |       |     |       |
|----------------|----------------------------------------------------------------|---------|------|------|------|-------|------|-------|-----|-------|
|                |                                                                | -40C    |      | -60C |      | -100C |      | -200C |     |       |
| SYMBOL         | TEST CONDITIONS                                                | TYP     | MAX  | TYP  | MAX  | TYP   | MAX  | TYP   | MAX | UNITS |
| I <sub>R</sub> | V <sub>R</sub> =Rated V <sub>RRM</sub>                         | -       | 50   | -    | 50   | -     | 50   | -     | 50  | μA    |
| I <sub>R</sub> | V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>J</sub> =100°C | -       | 20   | -    | 20   | -     | 20   | -     | 20  | mA    |
| V <sub>F</sub> | I <sub>F</sub> =8.0A                                           | 0.49    | 0.7  | 0.58 | 0.75 | 0.75  | 0.8  | 0.83  | 0.9 | V     |
| V <sub>F</sub> | I <sub>F</sub> =16A                                            | 0.6     | 0.84 | 0.75 | 0.95 | 0.83  | 1.10 | 0.91  | 1.2 | V     |
| C <sub>J</sub> | V <sub>R</sub> =4.0V, f=1.0MHz                                 | 379     | -    | 280  | -    | 353   | -    | 166   | -   | pF    |

CSHDD16-40C CSHDD16-100C  
CSHDD16-60C CSHDD16-200C

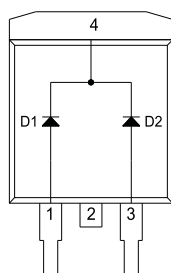


**SURFACE MOUNT SILICON  
DUAL, COMMON CATHODE  
SCHOTTKY RECTIFIERS  
16 AMP, 40 THRU 200 VOLT**

### D<sup>2</sup>PAK CASE - MECHANICAL OUTLINE



R3



**LEAD CODE:**  
1) Anode D1  
2) Cathode D1, D2  
3) Anode D2  
4) Cathode D1, D2  
Pin 2 is Common to the Ta

| DIMENSIONS |        |       |             |       |
|------------|--------|-------|-------------|-------|
| SYMBOL     | INCHES |       | MILLIMETERS |       |
|            | MIN    | MAX   | MIN         | MAX   |
| A          | 0.163  | 0.189 | 4.14        | 4.80  |
| B          | 0.045  | 0.055 | 1.14        | 1.40  |
| C          | 0.000  | 0.010 | 0.00        | 0.25  |
| D          | 0.012  | 0.028 | 0.30        | 0.70  |
| E          | 0.386  | 0.415 | 9.80        | 10.55 |
| F          | 0.378  | 0.417 | 9.60        | 10.60 |
| G          | 0.335  | 0.358 | 8.50        | 9.10  |
| H          | 0.188  | 0.236 | 4.78        | 6.00  |
| J          | 0.093  | 0.108 | 2.35        | 2.75  |
| K          | 0.030  | 0.035 | 0.75        | 0.90  |

D2PAK (REV: R3)

R9 (11-January 2018)

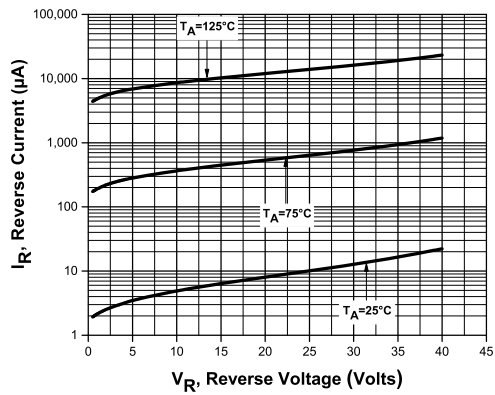
CSHDD16-40C CSHDD16-100C  
CSHDD16-60C CSHDD16-200C

SURFACE MOUNT SILICON  
DUAL, COMMON CATHODE  
SCHOTTKY RECTIFIERS  
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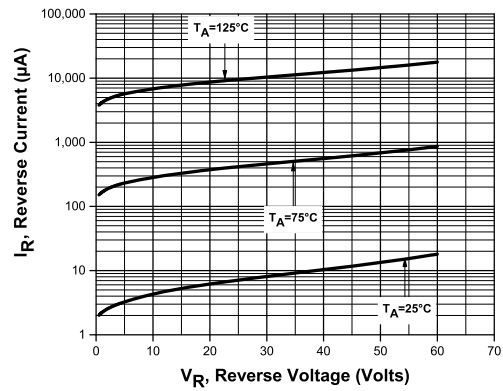


## TYPICAL ELECTRICAL CHARACTERISTICS

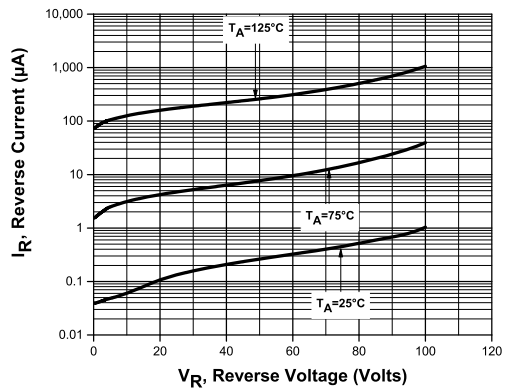
Leakage Current for CSHDD16-40C



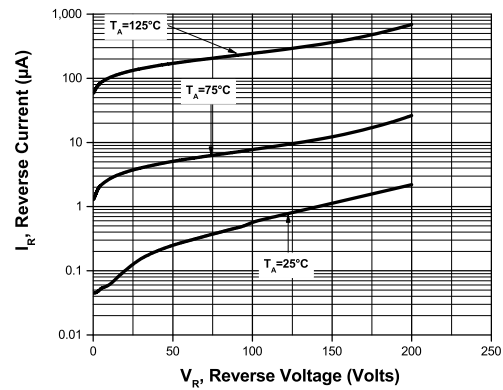
Leakage Current for CSHDD16-60C



Leakage Current for CSHDD16-100C



Leakage Current for CSHDD16-200C



R9 (11-January 2018)

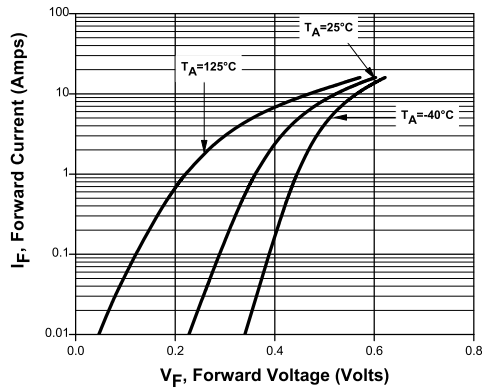
CSHDD16-40C CSHDD16-100C  
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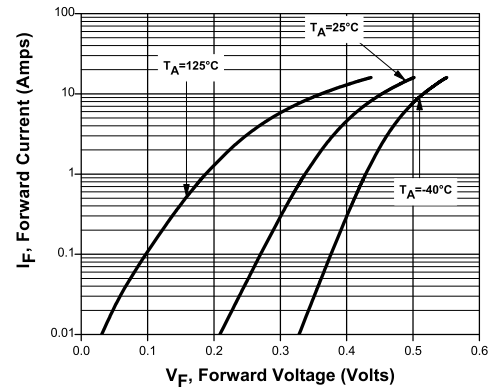


## TYPICAL ELECTRICAL CHARACTERISTICS

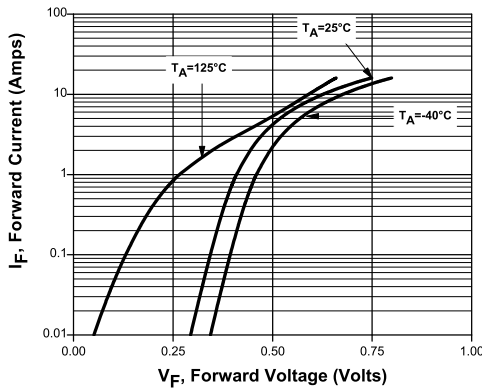
Forward Voltage for CSHDD16-40C per diode



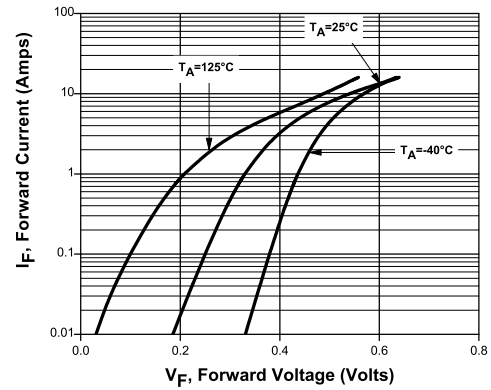
Forward Voltage for CSHDD16-40C, two diodes in parallel



Forward Voltage for CSHDD16-60C per diode



Forward Voltage for CSHDD16-60C, two diodes in parallel



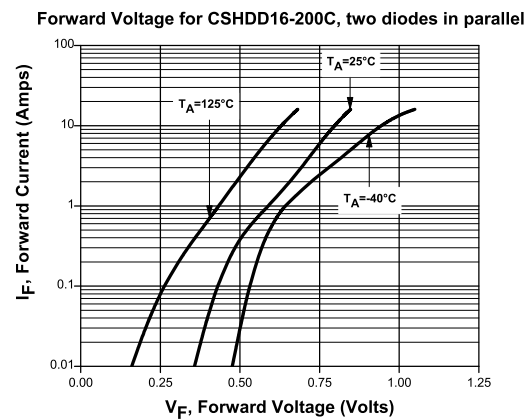
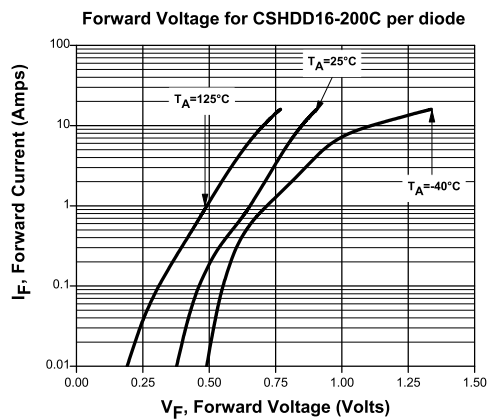
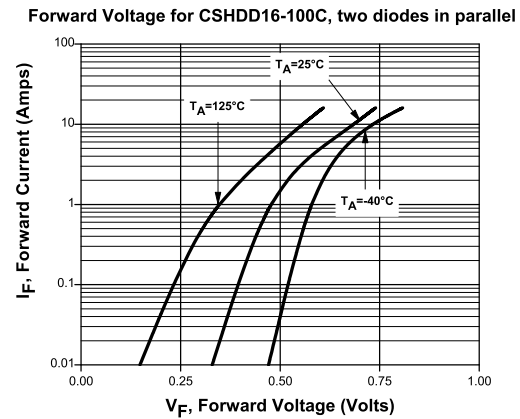
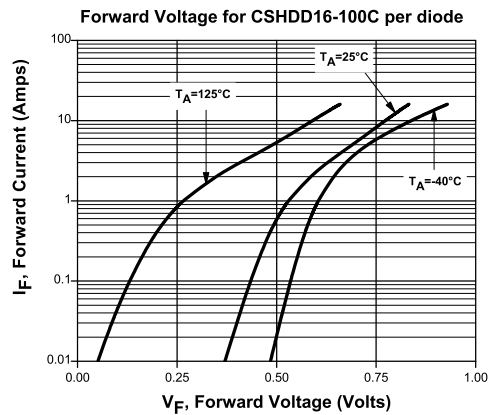
R9 (11-January 2018)

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## TYPICAL ELECTRICAL CHARACTERISTICS



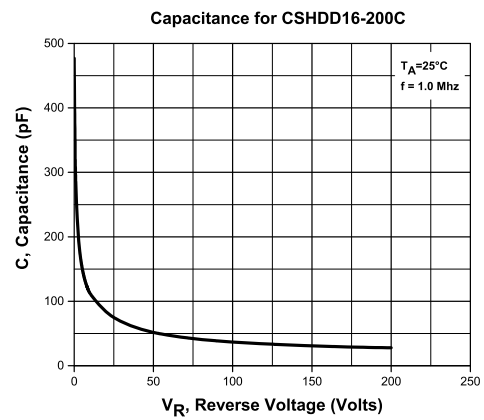
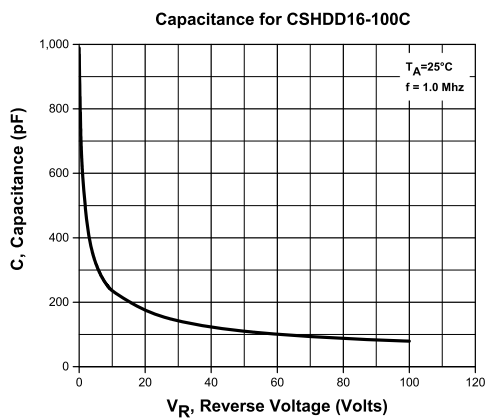
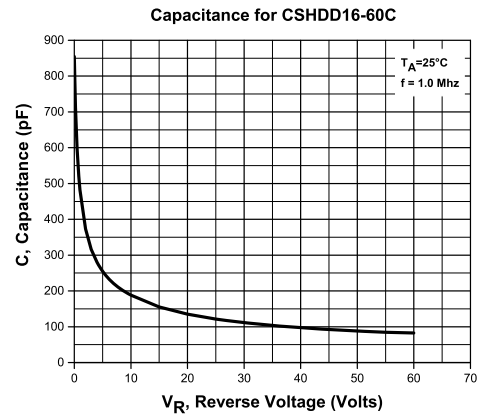
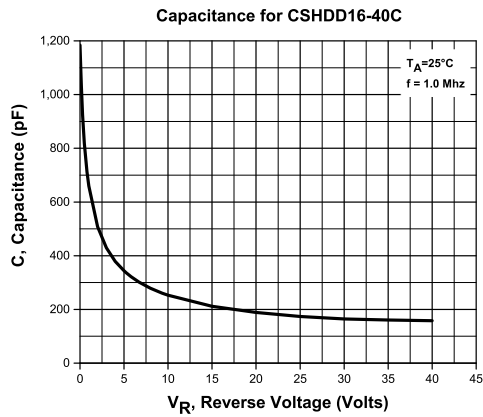
R9 (11-January 2018)

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## TYPICAL ELECTRICAL CHARACTERISTICS



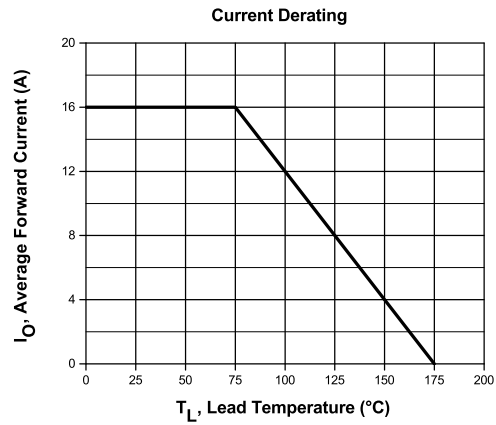
R9 (11-January 2018)

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16 AMP, 40 THRU 200 VOLT



## TYPICAL ELECTRICAL CHARACTERISTICS



R9 (11-January 2018)

## 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

#### Corporate Headquarters & Customer Support Team

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Hauppauge, NY 11788 USA  
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Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

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