

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

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



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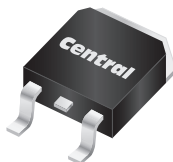
DESCRIPTION:

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

D²PAK!
 SUPER POWER



D²PAK CASE

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°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°C) | I _O | | | 16 | | A |
| Peak Forward Surge Current, tp=8.3ms | I _{FSM} | | | 150 | | A |
| Operating and Storage Junction Temperature | T _J , T _{stg} | | -65 to +175 | | | °C |
| Typical Thermal Resistance | θ _{JL} | | | 2.0 | | °C/W |
| Typical Thermal Resistance | θ _{JA} | | | 50 | | °C/W |

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

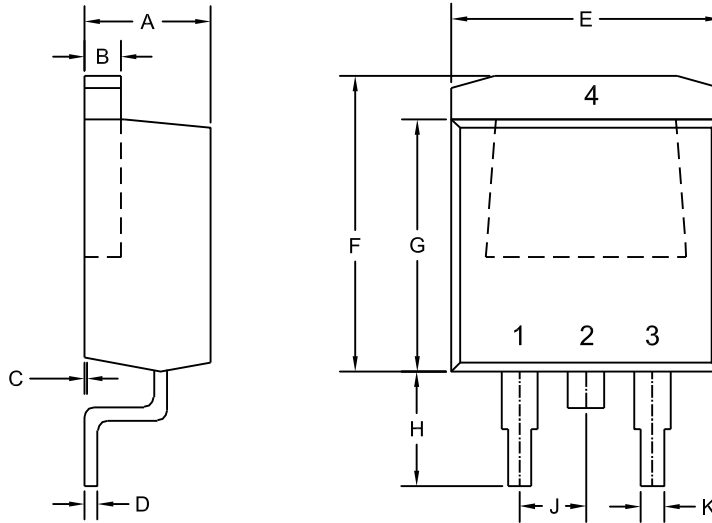
| SYMBOL | TEST CONDITIONS | CSHDD16 | | | | | | | | UNITS |
|----------------|--|---------|------|------|------|-------|------|-------|-----|-------|
| | | -40C | | -60C | | -100C | | -200C | | |
| | | TYP | MAX | TYP | MAX | TYP | MAX | TYP | MAX | |
| I _R | V _R =Rated V _{RRM} | - | 50 | - | 50 | - | 50 | - | 50 | µA |
| I _R | V _R =Rated V _{RRM} , T _J =100°C | - | 20 | - | 20 | - | 20 | - | 20 | mA |
| V _F | I _F =8.0A | 0.49 | 0.7 | 0.58 | 0.75 | 0.75 | 0.8 | 0.83 | 0.9 | V |
| V _F | I _F =16A | 0.6 | 0.84 | 0.75 | 0.95 | 0.83 | 1.10 | 0.91 | 1.2 | V |
| C _J | V _R =4.0V, f=1.0MHz | 379 | - | 280 | - | 353 | - | 166 | - | pF |

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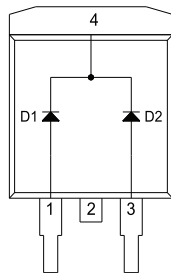


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D²PAK CASE - MECHANICAL OUTLINE



R2



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

| 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 | 0.409 | 9.80 | 10.40 |
| F | 0.378 | 0.417 | 9.60 | 10.60 |
| G | 0.335 | 0.358 | 8.50 | 9.10 |
| H | 0.197 | 0.236 | 5.00 | 6.00 |
| J | 0.093 | 0.108 | 2.35 | 2.75 |
| K | 0.030 | 0.035 | 0.75 | 0.90 |

D2PAK (REV: R2)

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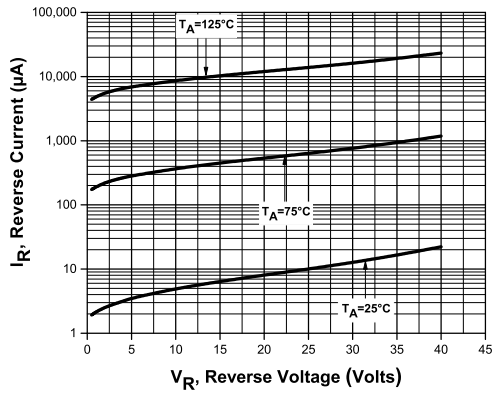
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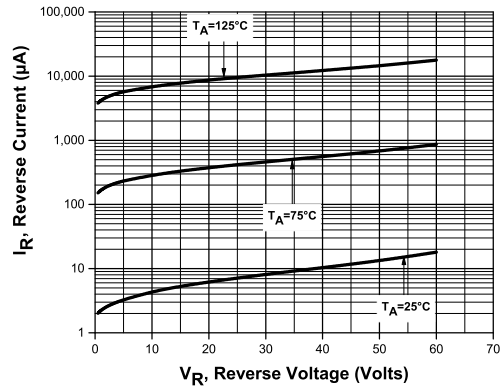
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TYPICAL ELECTRICAL CHARACTERISTICS

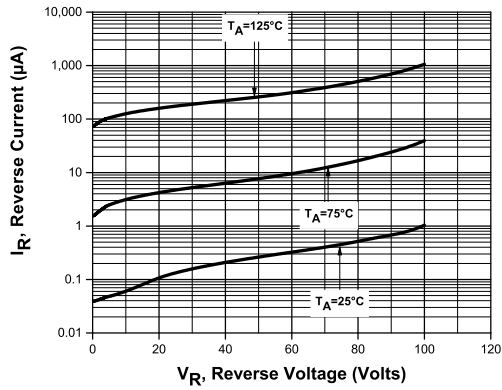
Leakage Current for CSHDD16-40C



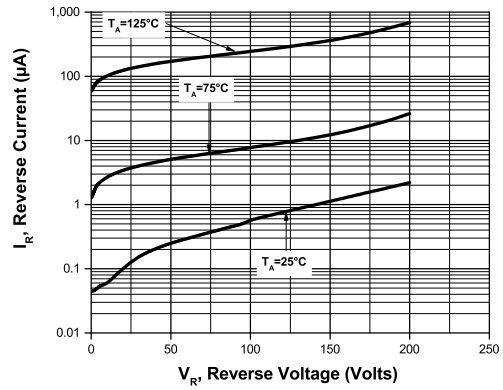
Leakage Current for CSHDD16-60C



Leakage Current for CSHDD16-100C



Leakage Current for CSHDD16-200C



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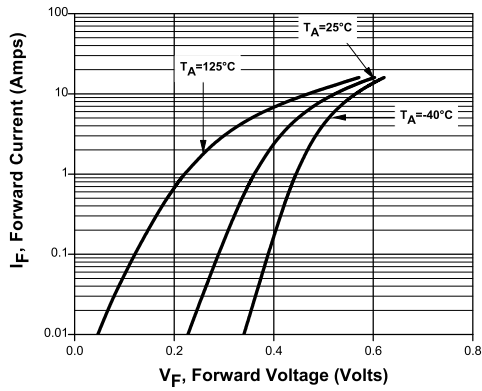
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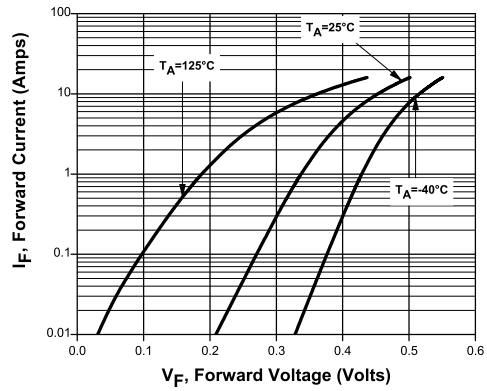
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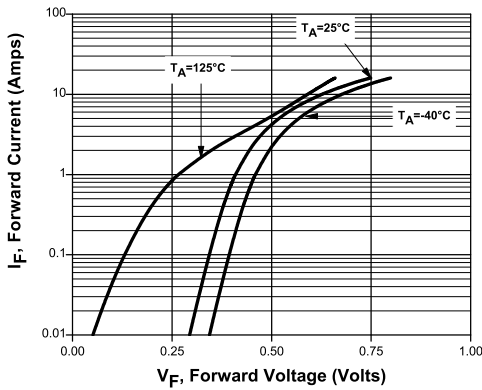
Forward Voltage for CSHDD16-40C per diode



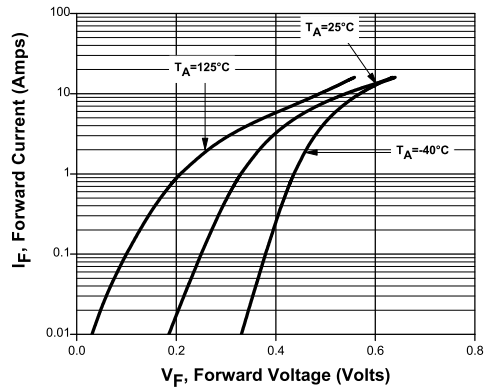
Forward Voltage for CSHDD16-40C, two diodes in parallel



Forward Voltage for CSHDD16-60C per diode



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



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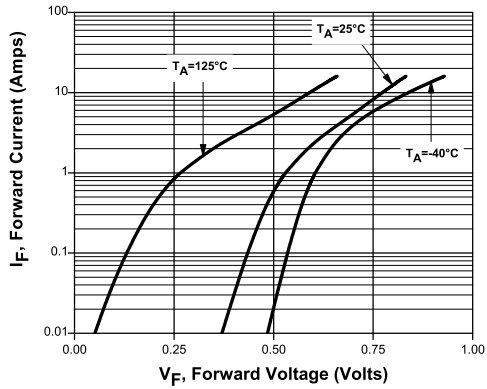
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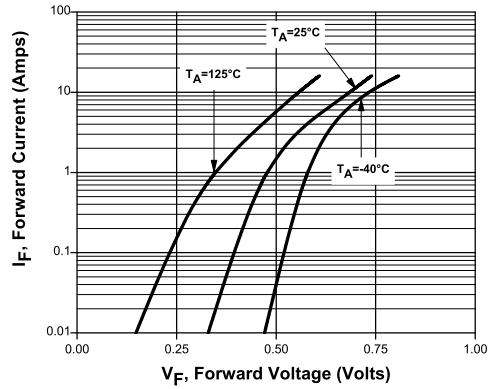
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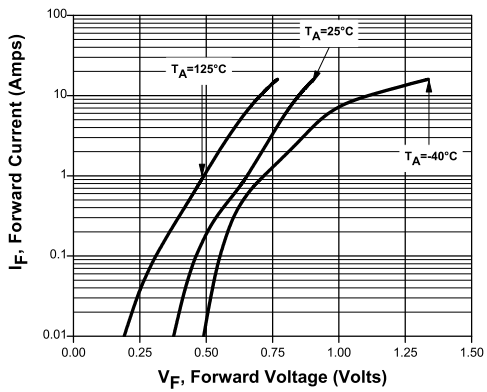
Forward Voltage for CSHDD16-100C per diode



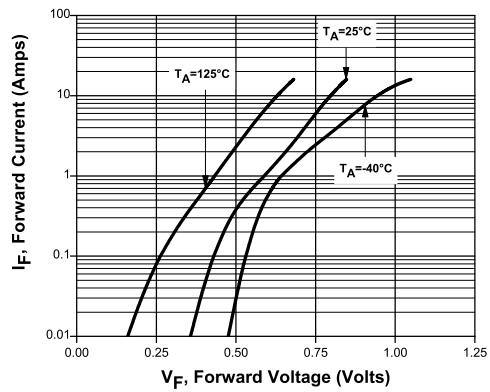
Forward Voltage for CSHDD16-100C, two diodes in parallel



Forward Voltage for CSHDD16-200C per diode



Forward Voltage for CSHDD16-200C, two diodes in parallel

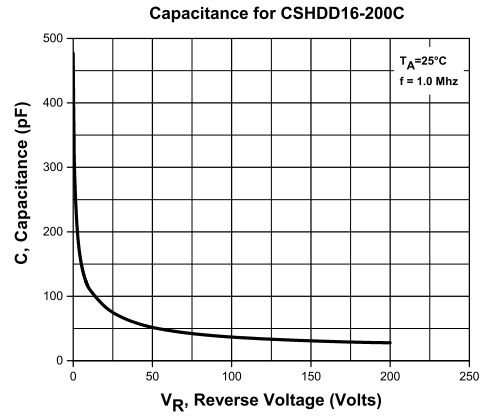
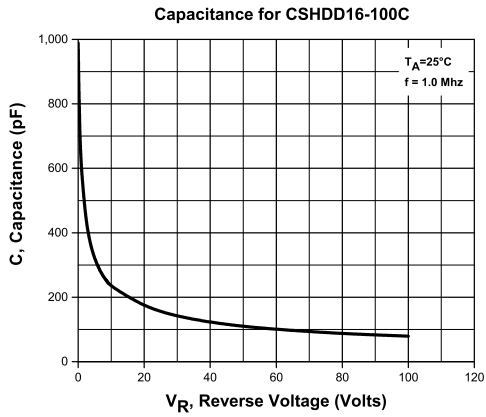
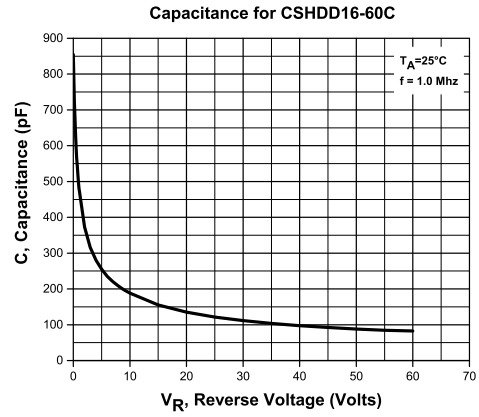
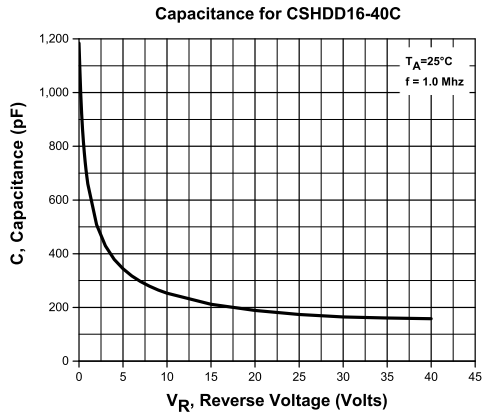


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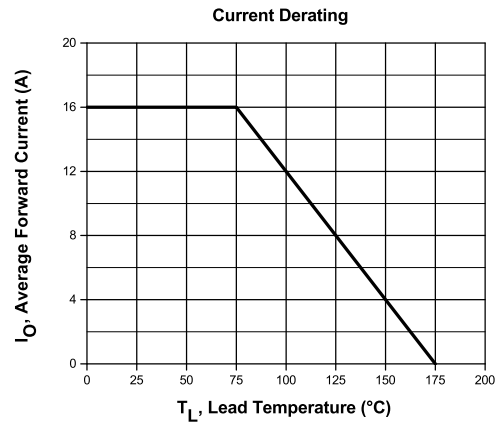
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TYPICAL ELECTRICAL CHARACTERISTICS



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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 quick 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

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