



**THE DATASHEET OF  
CSHDD16-100C TR13 PBFREE**



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

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



www.centrasemi.com

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



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

**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<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL	CSHDD16				UNITS
		-40C	-60C	-100C	-200C	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	60	100	200	V
DC Blocking Voltage	V <sub>R</sub>	40	60	100	200	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	42	70	140	V
Average Forward Current (T <sub>L</sub> =75°C)	I <sub>O</sub>		16			A
Peak Forward Surge Current, tp=8.3ms	I <sub>FSM</sub>		150			A
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>		-65 to +175			°C
Typical Thermal Resistance	θ <sub>JL</sub>		2.0			°C/W
Typical Thermal Resistance	θ <sub>JA</sub>		50			°C/W

**ELECTRICAL CHARACTERISTICS PER DIODE:** (T<sub>A</sub>=25°C unless otherwise noted)

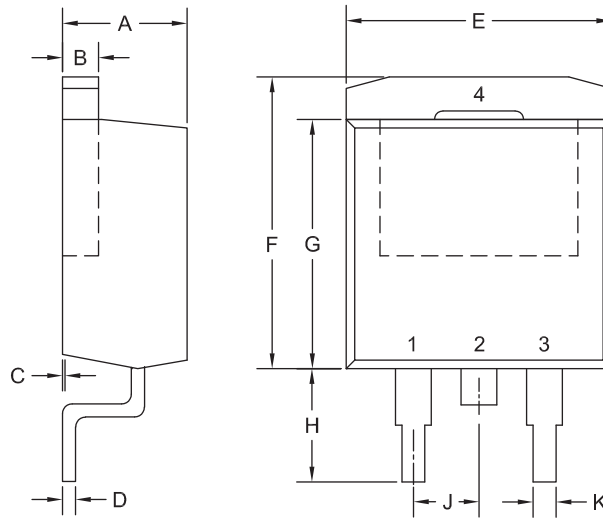
SYMBOL	TEST CONDITIONS	CSHDD16								UNITS
		-40C		-60C		-100C		-200C		
		TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX	
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub>	-	50	-	50	-	50	-	50	µA
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>J</sub> =100°C	-	20	-	20	-	20	-	20	mA
V <sub>F</sub>	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

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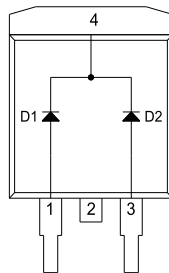


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**D<sup>2</sup>PAK CASE - MECHANICAL OUTLINE**



R3



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

SYMBOL	DIMENSIONS			
	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)

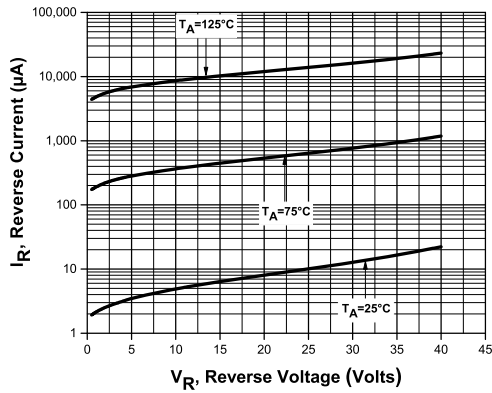
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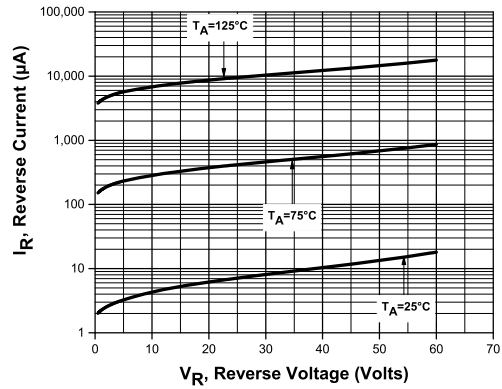
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TYPICAL ELECTRICAL CHARACTERISTICS

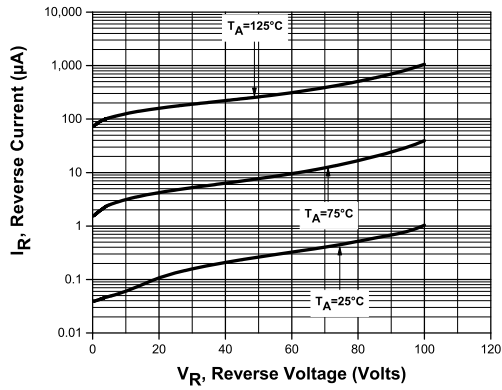
Leakage Current for CSHDD16-40C



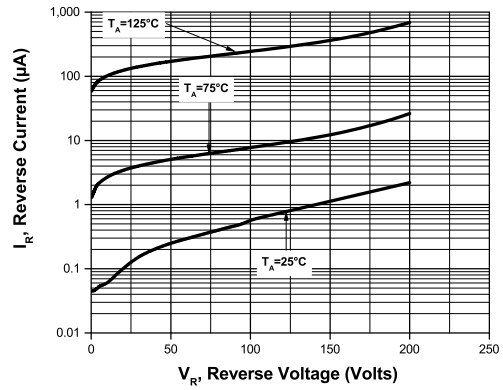
Leakage Current for CSHDD16-60C



Leakage Current for CSHDD16-100C



Leakage Current for CSHDD16-200C



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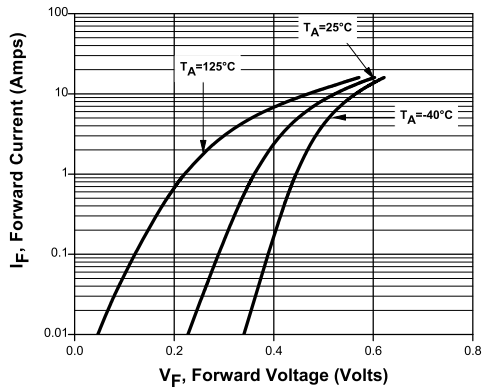
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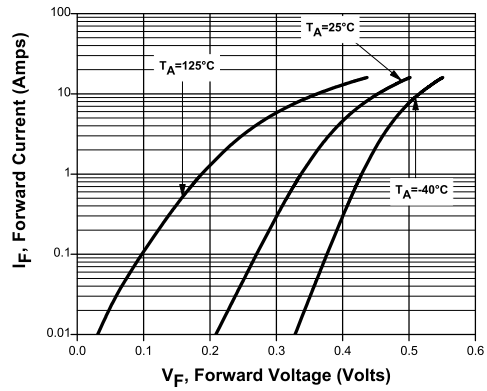
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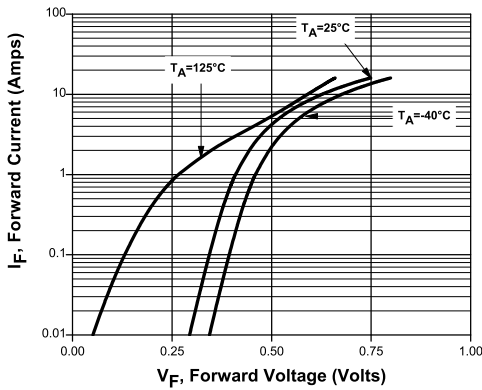
Forward Voltage for CSHDD16-40C per diode



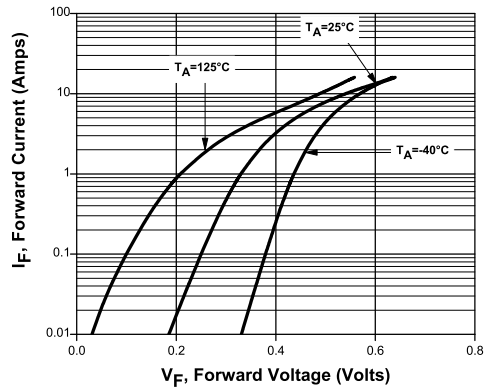
Forward Voltage for CSHDD16-40C, two diodes in parallel



Forward Voltage for CSHDD16-60C per diode



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



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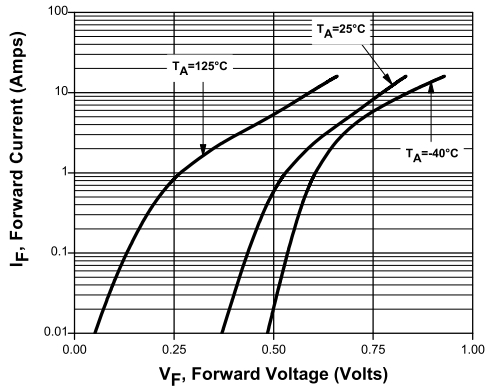
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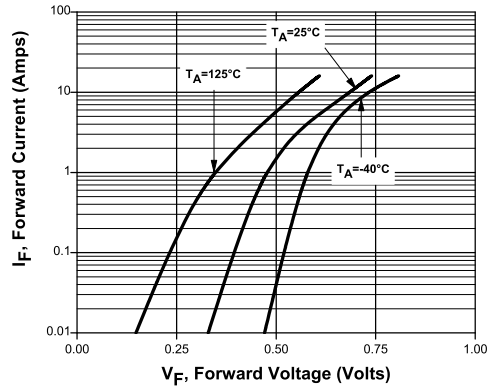
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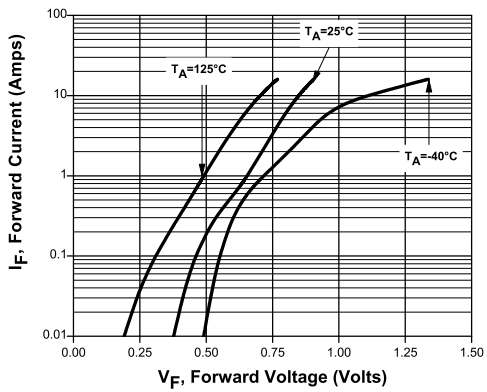
Forward Voltage for CSHDD16-100C per diode



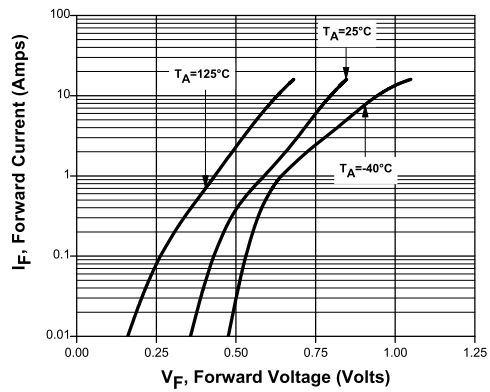
Forward Voltage for CSHDD16-100C, two diodes in parallel



Forward Voltage for CSHDD16-200C per diode



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



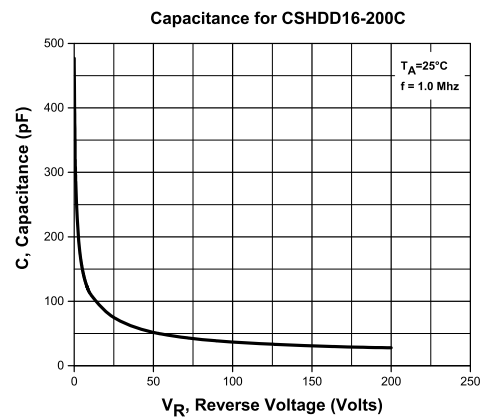
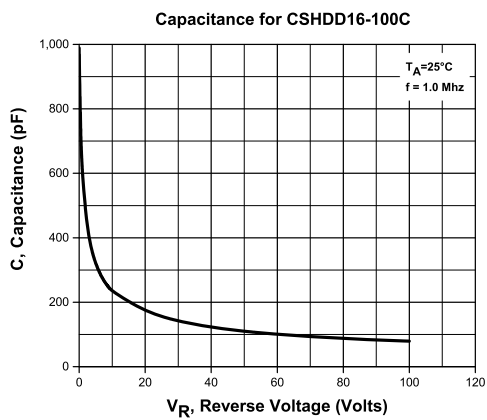
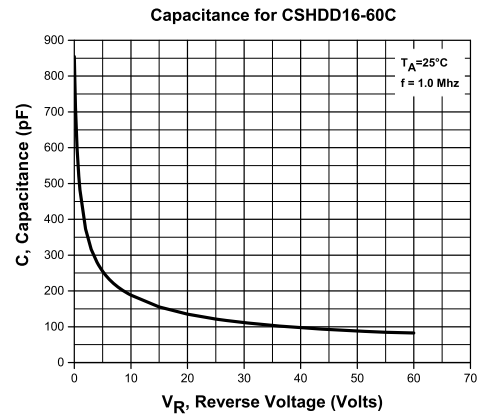
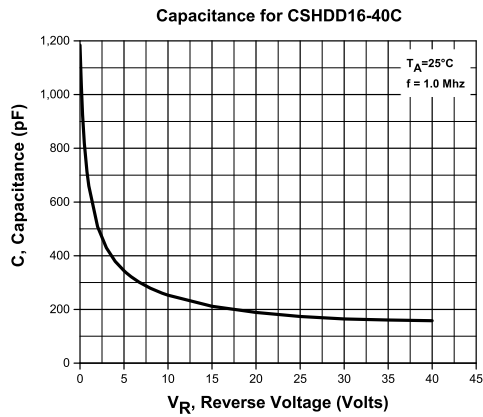
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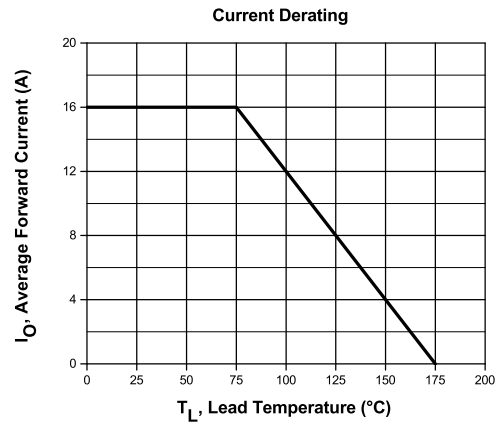
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### TYPICAL ELECTRICAL CHARACTERISTICS



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## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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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

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

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## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
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- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management