

SURFACE MOUNT SILICON SCHOTTKY RECTIFIER 3.0 AMP, 40 VOLT





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# DESCRIPTION:

The CENTRAL SEMICONDUCTOR CSHD3-40 is a highly reliable silicon Schottky rectifier designed for use in all types of commercial, industrial, entertainment, computer and automotive applications.

#### MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T <sub>C</sub> =25°C unless otherwise noted)						
		SYMBOL		UNITS		
Peak Repetitive Reverse Voltage		V <sub>RRM</sub>	40	V		
Average Rectified Forward Current (T <sub>C</sub> =120°C)		IO	3.0	А		
Peak Forward Surge Current, tp=10ms		IFSM	75	А		
Peak Repetitive Reverse Surge Current, tp=2.0µs		IRRM	1.0	А		
Critical Rate of Rise of Reverse Voltage		dv/dt	10,000	V/µs		
Operating and Storage Junction Temperature		T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C		
Thermal Resistance		ΘJC	5.5	°C/W		
ELECTRICAL CHARACTERISTICS: (T <sub>C</sub> =25°C unless otherwise noted)						
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS		
IR	V <sub>R</sub> =40V	9.0	100	μA		
I <sub>R</sub>	V <sub>R</sub> =40V, T <sub>C</sub> =125°C	7.6	10	mA		
VF	I <sub>F</sub> =3.0A	0.48	0.65	V		
V <sub>F</sub>	I <sub>F</sub> =3.0A, T <sub>C</sub> =125°C	0.41	0.60	V		
CJ	V <sub>R</sub> =0, f=1.0MHz	476		pF		

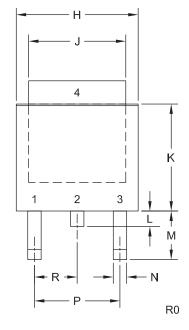
R10 (26-February 2016)





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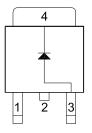
# 



# LEAD CODE:

- 1) No Connection
- 2) Cathode
- 3) Anode
- 4) Cathode
- Pin 2 is common to the tab (4)

## MARKING: FULL PART NUMBER



DIMENSIONS								
	INCHES		MILLIMETERS					
SYMBOL	MIN	MAX	MIN	MAX				
A	0.083	0.108	2.10	2 <u>.</u> 75				
В	0.016	0.032	0.40	0.81				
С	0.035	0.063	0.89	1.60				
D	0.203	0.228	5.15	5.79				
E	0.020	-	0.51	-				
F	0.018	0.024	0.45	0.60				
G	0.051	0.071	1.30	1.80				
Н	0.248	0.268	6.30	6.81				
J	0.197	0.217	5.00	5.50				
K	0.209	0.245	5.30	6.22				
L	0.025	0.040	0.64	1.02				
М	0.090	0.115	2.30	2.91				
N	0.012	0.045	0.30	1.14				
Р	0.180		4.60					
R	0.090		2.30					
DPAK (REV: R0)								

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# DPAK CASE - MECHANICAL OUTLINE



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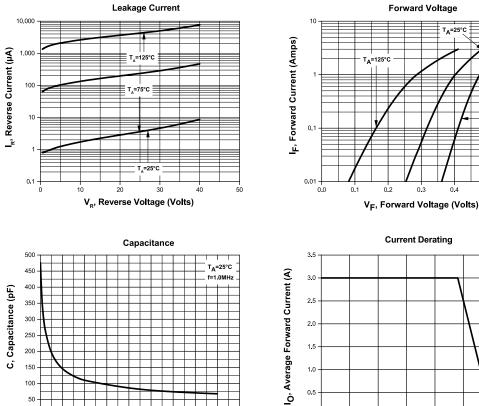
TA=25°C

0.4

T<sub>A</sub>=-40°C

0.5

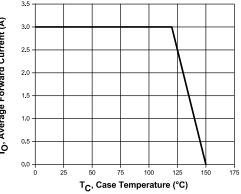
0.6



# **TYPICAL ELECTRICAL CHARACTERISTICS**

5 10 15 20 25 30 35 40 45 V<sub>R</sub>, Reverse Voltage (Volts)





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150

100

50

0

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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

#### **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

· Custom product packing

- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits

Custom bar coding for shipments

Custom product and package development

## **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).
- If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

#### 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.centralsemi.com

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