

CSHD3-40

SURFACE MOUNT SILICON
SCHOTTKY RECTIFIER
3.0 AMP, 40 VOLT



DPAK CASE



www.centrasemi.com

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: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

| | SYMBOL | | UNITS |
|---|----------------|-------------|-----------------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 40 | V |
| Average Rectified Forward Current ($T_C=120^{\circ}\text{C}$) | I_O | 3.0 | A |
| Peak Forward Surge Current, $t_p=10\text{ms}$ | I_{FSM} | 75 | A |
| Peak Repetitive Reverse Surge Current, $t_p=2.0\mu\text{s}$ | I_{RRM} | 1.0 | A |
| Critical Rate of Rise of Reverse Voltage | dv/dt | 10,000 | V/ μs |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +150 | $^{\circ}\text{C}$ |
| Thermal Resistance | Θ_{JC} | 5.5 | $^{\circ}\text{C}/\text{W}$ |

ELECTRICAL CHARACTERISTICS: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

| SYMBOL | TEST CONDITIONS | TYP | MAX | UNITS |
|--------|--|------|------|---------------|
| I_R | $V_R=40\text{V}$ | 9.0 | 100 | μA |
| I_R | $V_R=40\text{V}, T_C=125^{\circ}\text{C}$ | 7.6 | 10 | mA |
| V_F | $I_F=3.0\text{A}$ | 0.48 | 0.65 | V |
| V_F | $I_F=3.0\text{A}, T_C=125^{\circ}\text{C}$ | 0.41 | 0.60 | V |
| C_J | $V_R=0, f=1.0\text{MHz}$ | 476 | | pF |

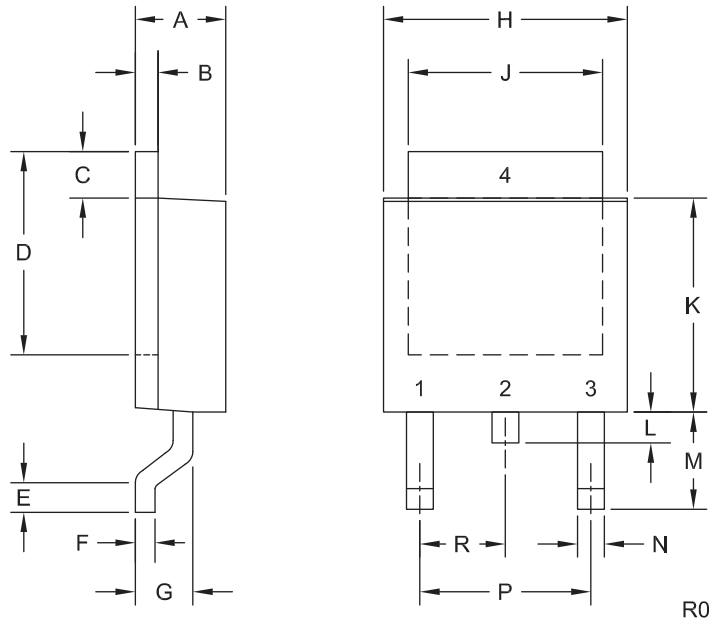
R10 (26-February 2016)

CSHD3-40

SURFACE MOUNT SILICON
SCHOTTKY RECTIFIER
3.0 AMP, 40 VOLT



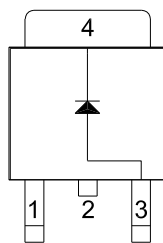
DPAK CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING: FULL PART NUMBER



| DIMENSIONS | | | | |
|------------|--------|-------|-------------|------|
| SYMBOL | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.083 | 0.108 | 2.10 | 2.75 |
| B | 0.016 | 0.032 | 0.40 | 0.81 |
| C | 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 |
| H | 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 |
| M | 0.090 | 0.115 | 2.30 | 2.91 |
| N | 0.012 | 0.045 | 0.30 | 1.14 |
| P | 0.180 | | 4.60 | |
| R | 0.090 | | 2.30 | |

DPAK (REV: R0)

R10 (26-February 2016)

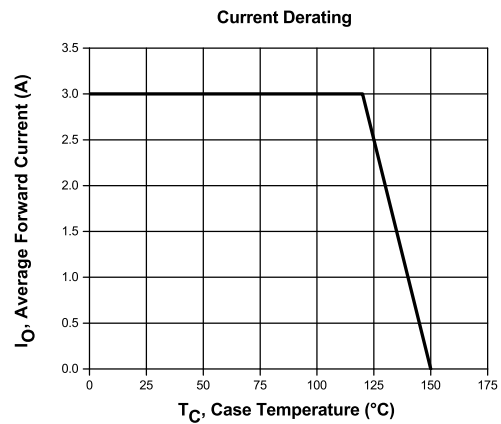
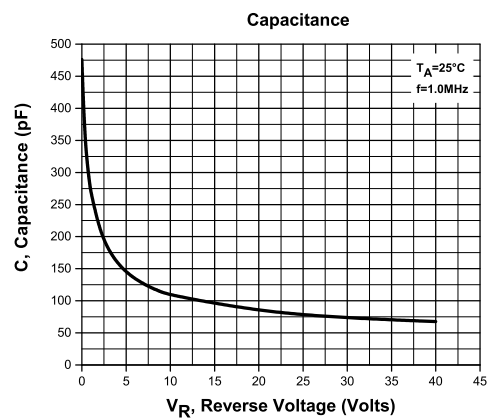
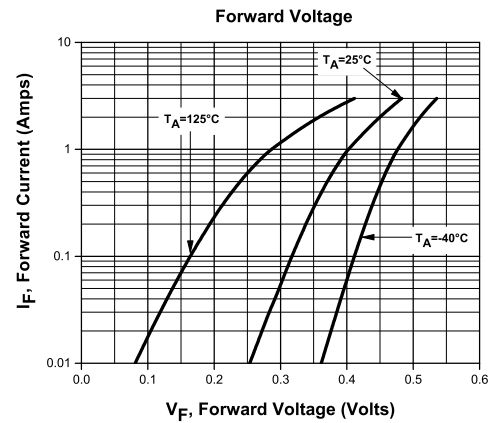
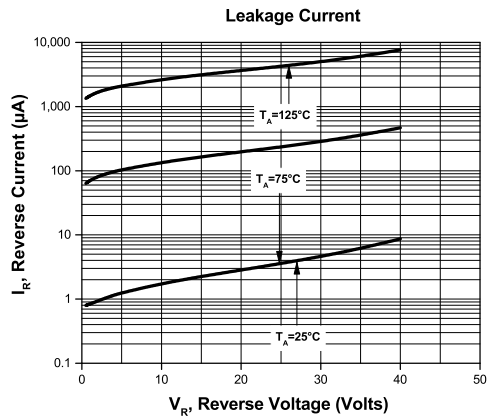
www.centalsemi.com

CSHD3-40

SURFACE MOUNT SILICON
SCHOTTKY RECTIFIER
3.0 AMP, 40 VOLT



TYPICAL ELECTRICAL CHARACTERISTICS



R10 (26-February 2016)

www.centrasemi.com

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

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).

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

Worldwide Field Representatives:
www.centalsemi.com/wwreps

Worldwide Distributors:
www.centalsemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centalsemi.com/terms