145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

CDH3OO CDH333

SILICON LOW LEAKAGE DIODE

JEDEC D0-35 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR CDH300, CDH333 types are epitaxial planar silicon diodes designed for low leakage, high conductance applications. Higher breakdown voltage devices are available on special order.

MAXIMUM RATING $\left(T_{A}=25^{\circ} \mathrm{C}\right)$

|  | SYMBOL |  | UNIT |
| :---: | :---: | :---: | :---: |
| Peak Repetitive Reverse Voltage | $V_{\text {RRM }}$ | 150 | V |
| Peak Working Reverse Voltage | $V_{\text {RWM }}$ | 125 | V |
| Average Forward Current | $\mathrm{I}_{0}$ | 200 | mA |
| Forward Steady-State Current | IF | 500 | mA |
| Recurrent Peak Forward Current | $i_{f}$ | 600 | mA |
| Peak Forward Surge Current (1.0s pulse) | IFSM | 1000 | mA |
| Peak Forward Surge Current (1.0) | $I_{\text {FSM }}$ | 4000 | mA |
| Power Dissipation | $P_{D}$ | 500 | mW |
| Operating and Storage |  |  |  |
| Junction Temperature | TJ, TSTG | $-6510+200$ | ${ }^{\circ} \mathrm{C}$ |

ELECTRICAL CHARACTERISTICS $\left(T_{A}=25^{\circ} \mathrm{C}\right.$ unless otherwise noted)
CDH300
CDH333

| SYMB0L | TEST CONDITIONS | MIN | MAX | MIN | MAX | UNIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $I_{R}$ | $\mathrm{V}_{\mathrm{R}}=125 \mathrm{~V}$ |  | 1.0 |  | 3.0 | nA |
| $\mathrm{I}_{\mathrm{R}}$ | $\mathrm{V}_{\mathrm{R}}=125 \mathrm{~V}, \mathrm{~T}_{\mathrm{A}}=100^{\circ} \mathrm{C}$ |  | - |  | 500 | nA |
| ${ }^{1} \mathrm{R}$ | $V_{R}=125 \mathrm{~V}, \mathrm{~T}_{A}=150^{\circ} \mathrm{C}$ |  | 3.0 |  | - | $\mu \mathrm{A}$ |
| ${ }^{\text {B }}$ VR | $\mathrm{I}_{\mathrm{R}}=100 \mu \mathrm{~A}$ | 150 |  | 150 |  | V |
| $V_{F}$ | $I^{F}=1.0 \mathrm{~mA}$ |  | 0.70 |  | - | V |
| $V_{F}$ | $\mathrm{I}_{\mathrm{F}}=5.0 \mathrm{~mA}$ |  | 0.78 |  | - | V |
| $V_{F}$ | $1{ }_{F}=10 \mathrm{~mA}$ |  | 0.80 |  | - | V |
| $V_{F}$ | $1_{F}=50 \mathrm{~mA}$ |  | 0.88 | 0.80 | 0.89 | V |
| $V_{F}$ | $\mathrm{I}_{\mathrm{F}}=100 \mathrm{~mA}$ |  | 0.92 | 0.83 | 0.94 | v |
| $V_{F}$ | $\mathrm{I}_{\mathrm{F}}=150 \mathrm{~mA}$ |  | - | 0.86 | 0.97 | V |
| $V_{F}$ | $1 \mathrm{I}^{\prime}=200 \mathrm{~mA}$ |  | 1.0 | 0.87 | 1.05 | V |
| $V_{F}$ | $1{ }^{\prime}=250 \mathrm{~mA}$ |  | - | 0.88 | 1.08 | V |
| $V_{F}$ | $1{ }^{\prime}=300 \mathrm{~mA}$ |  | - | 0.90 | 1.15 | V |
| C | $V_{R}=0 \mathrm{~V}$ |  | 6.0 |  | 6.0 | pF |
| $t_{r r}$ | $I_{F}=I_{R}=10 \mathrm{~mA}$, Recov. to 1.0 mA | 1.0 TYP | 3.0 | 1.0 TYP | 3.0 | $\mu \mathrm{s}$ |

## PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Custom bar coding for shipments
- Inventory bonding
- Custom product packing
- 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 $2^{\text {nd }}$ day air)
- Special wafer diffusions
- Online technical data and parametric search
- PbSn plating options
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Package details
- Application notes
- Customer specific screening
- Application and design sample kits
- Up-screening capabilities
- 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.centralsemi.com

[^0]| PDN ID: | PDN01207 |
| ---: | :--- |
| Notification Date: | $2 / 01 / 22$ |
| Last Buy Date: | $8 / 01 / 22$ |
| Last Shipment Date | $2 / 01 / 23$ |

Summary:The following switching diodes are discontinued and now classified as End of Life (EOL).
Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

* All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.

| Central Part Number | Suggested Replacement |
| :--- | :--- |
| CDH333 BK | N/A |
| CDH333 TR | N/A |
| 1N3595 BK | N/A |
| 1N3595 TR | N/A |

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. If you would like assistance, please visit https://my.centralsemi.com/submit-inquiry?type=ER to submit an online inquiry.

[^1]
[^0]:    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.centralsemi.com/terms

[^1]:    DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

