

CentralTM Semiconductor Corp.

145 Adams Ave., Hauppauge, NY 11788 USA
Phone (631) 435-1110 FAX (631) 435-1824

Manufacturers of World Class Discrete Semiconductors
www.centrasemi.com

CN645 THRU CN649

GLASS PASSIVATED JUNCTION
GENERAL PURPOSE DIODE

DO-41SP CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CN645 Series types are Glass Passivated Junction general-purpose diodes, which are well constructed, highly reliable components designed for use in all types of commercial, industrial, entertainment, computer and automotive applications.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

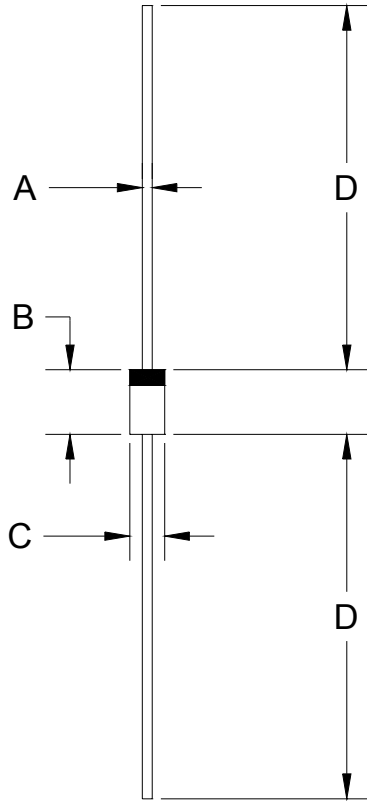
| | SYMBOL | CN645 | CN646 | CN647 | CN648 | CN649 | UNITS |
|---|-----------------------------------|-------|-------|------------|-------|-------|-------|
| Peak Working Reverse Voltage | V _{RWM} | 225 | 300 | 400 | 500 | 600 | V |
| Average Forward Current | I _O | | | 400 | | | mA |
| Average Forward Current (T _A =150°C) | I _O | | | 150 | | | mA |
| Peak Forward Surge Current | I _{FSM} | | | 3.0 | | | A |
| Power Dissipation | P _D | | | 600 | | | mW |
| Operating and Storage Junction Temperature | T _J , T _{stg} | | | -65 to 150 | | | °C |

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

| SYMBOL | TEST CONDITIONS | CN645 | | CN646 | | CN647 | | CN648 | | CN649 | | UNITS |
|-----------------|--|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| | | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | |
| V _{BR} | I _R =100μA, T _A =100°C | 275 | | 360 | | 480 | | 600 | | 720 | | V |
| I _R | V _R =RATED V _{RWM} , T _A =100°C | | 15 | | 15 | | 20 | | 20 | | 25 | μA |
| I _R | V _R =RATED V _{RWM} | | 0.2 | | 0.2 | | 0.2 | | 0.2 | | 0.2 | μA |
| V _F | I _F =400mA | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | V |
| C _T | V _R =12V, f=1.0MHz | | 11 TYP | | 11 TYP | | 11 TYP | | 11 TYP | | 11 TYP | pF |

(SEE REVERSE SIDE)

DO-41SP PACKAGE - MECHANICAL OUTLINE



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.021 | 0.025 | 0.53 | 0.64 |
| B | 0.160 | 0.205 | 4.06 | 5.21 |
| C | 0.080 | 0.107 | 2.03 | 2.72 |
| D | 1.000 | - | 25.40 | - |

DO-41SP (REV: R1)

R1

Central[™]
Semiconductor Corp.

145 Adams Ave., Hauppauge, NY 11788 USA
Phone (631) 435-1110 FAX (631) 435-1824

Manufacturers of World Class Discrete Semiconductors
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.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.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.centrasemi.com/terms



<http://www.centrasemi.com>

Product End of Life Notification

| | |
|---------------------------|----------|
| PDN ID: | PDN01076 |
| Notification Date: | 3/21/18 |
| Last Buy Date: | N/A |
| Last Shipment Date | N/A |

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. We are unable to accept any further orders for these products **unless** we have available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

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.



<http://www.centrasemi.com>

Product End of Life Notification

| | |
|---------------------------|----------|
| PDN ID: | PDN01076 |
| Notification Date: | 3/21/18 |
| Last Buy Date: | N/A |
| Last Shipment Date | N/A |

Summary: The CN645 series of general purpose rectifiers is being discontinued; these devices are 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 various 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 Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

| <u>Central Part Number</u> | <u>Replacement</u> |
|----------------------------|--------------------|
| CN645 BK | N/A |
| CN645 TR | N/A |
| CN649 BK | N/A |
| CN649 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. Please email your requests to engineering@centrasemi.com.

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.



<http://www.centrasemi.com>

Product End of Life Notification

| | |
|---------------------------|----------|
| PDN ID: | PDN01056 |
| Notification Date: | 8/24/16 |
| Last Buy Date: | 2/24/17 |
| Last Shipment Date | 8/24/17 |

Summary: The CN646, CN647, and CN648, general purpose diodes in the DO-41SP case 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 various 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 Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

| <u>Central Part Number</u> | <u>Replacement</u> |
|----------------------------|--------------------|
| CN646 BK | CN649 BK |
| CN646 TR | CN649 TR |
| CN647 BK | CN649 BK |
| CN647 TR | CN649 TR |
| CN648 BK | CN649 BK |
| CN648 TR | CN649 TR |

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. Please email your requests to engineering@centrasemi.com.

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.