

CPR1U-040

**GLASS PASSIVATED  
ULTRA FAST RECOVERY  
SILICON RECTIFIER**



**GPR-1A CASE**



[www.centralemi.com](http://www.centralemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CPR1U-040 is a silicon rectifier mounted in a hermetically sealed, glass passivated package, designed for use in all types of commercial, industrial, entertainment and automotive applications where ultra fast switching speeds are required.

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

|                                                      | SYMBOL         |             | UNITS              |
|------------------------------------------------------|----------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage                      | $V_{RRM}$      | 400         | V                  |
| DC Blocking Voltage                                  | $V_R$          | 400         | V                  |
| RMS Reverse Voltage                                  | $V_{R(RMS)}$   | 280         | V                  |
| Average Forward Current ( $T_L=55^{\circ}\text{C}$ ) | $I_O$          | 1.5         | A                  |
| Peak Forward Surge Current, $t_p=8.3\text{ms}$       | $I_{FSM}$      | 50          | A                  |
| Operating and Storage Junction Temperature           | $T_J, T_{stg}$ | -65 to +175 | $^{\circ}\text{C}$ |

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

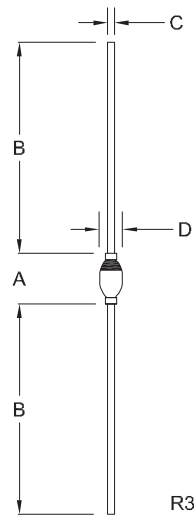
| SYMBOL   | TEST CONDITIONS                                         | TYP | MAX | UNITS         |
|----------|---------------------------------------------------------|-----|-----|---------------|
| $I_R$    | $V_R=400\text{V}$                                       |     | 5.0 | $\mu\text{A}$ |
| $I_R$    | $V_R=400\text{V}, T_A=100^{\circ}\text{C}$              |     | 100 | $\mu\text{A}$ |
| $V_F$    | $I_F=1.5\text{A}$                                       |     | 1.6 | V             |
| $C_J$    | $V_R=4.0\text{V}, f=1.0\text{MHz}$                      | 35  |     | pF            |
| $t_{rr}$ | $I_R=1.0\text{A}, I_F=0.5\text{A}, I_{rr}=0.25\text{A}$ | 25  | 35  | ns            |

R1 (28-February 2013)

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**GPR-1A CASE - MECHANICAL OUTLINE**



| SYMBOL | DIMENSIONS |       |             |      |
|--------|------------|-------|-------------|------|
|        | INCHES     |       | MILLIMETERS |      |
|        | MIN        | MAX   | MIN         | MAX  |
| A      | -          | 0.240 | -           | 6.10 |
| B      | 1.000      | -     | 25.40       | -    |
| C      | 0.028      | 0.034 | 0.71        | 0.86 |
| D      | 0.070      | 0.150 | 1.80        | 3.81 |

GPR-1A (REV: R3)

**MARKING: FULL PART NUMBER**

R1 (28-February 2013)

## 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)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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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/terms)



<https://www.centalsemi.com>

# Product End of Life Notification

|                    |                  |
|--------------------|------------------|
| PDN ID:            | PDN01256 Rev:001 |
| Notification Date: | 5/01/23          |
| Last Buy Date:     | N/A              |
| Last Shipment Date | N/A              |

Summary: The glass passivated rectifier (GPR) series is discontinued and now classified as End of Life (EOL). Rev:001 of PDN#01256, April 28, 2023, issued to correct the summary.

Although Central Semiconductor 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 Portfolio Management. 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 |
|---------------------|-----------------------|
| CEN1277 BK          | N/A                   |
| CEN1277 TR          | N/A                   |
| CEN1444 BK          | N/A                   |
| CEN619 BK           | N/A                   |
| CPR1-060 BK         | N/A                   |
| CPR1F-010 BK        | N/A                   |
| CPR1F-040 BK        | N/A                   |
| CPR1F-060 BK        | N/A                   |
| CPR1U-040 BK        | N/A                   |
| CPR1U-040 TR        | N/A                   |
| CPR2-020 BK         | N/A                   |
| CPR2-020 TR         | N/A                   |
| CPR2-040 BK         | N/A                   |
| CPR2-040 TR         | N/A                   |
| CPR2-060 BK         | N/A                   |
| CPR3F-010 BK        | N/A                   |
| CPR3F-040 BK        | N/A                   |
| CPR3F-060 BK        | N/A                   |
| CPR3F-080 BK        | N/A                   |
| CPR4-010 BK         | N/A                   |
| CPR4-020 BK         | N/A                   |
| CPR4-040 BK         | N/A                   |
| CPR4-060 BK         | N/A                   |
| CPR4-080 BK         | N/A                   |
| CPR4-100 BK         | N/A                   |
| CPR4F-010 BK        | N/A                   |
| CPR4F-020 BK        | N/A                   |
| CPR4F-040 BK        | N/A                   |
| CPR4F-060 BK        | N/A                   |
| CPR5U-040 BK        | N/A                   |
| CPR5U-040 TR        | N/A                   |
| CPR5U-060 BK        | N/A                   |
| 1N3611 BK           | N/A                   |
| 1N3611 TR           | N/A                   |
| 1N3614 BK           | N/A                   |

\*\*\* CONTINUED \*\*\*

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor 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.



<https://www.centalsemi.com>

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|---------------------|-----------------------|
| 1N3614 TR           | N/A                   |
| 1N3981 BK           | N/A                   |
| 1N4246 BK           | N/A                   |
| 1N4246 TR           | N/A                   |
| 1N4247 BK           | N/A                   |
| 1N4247 TR           | N/A                   |
| 1N4946 BK           | N/A                   |
| 1N4946 TR           | N/A                   |
| 1N4947 BK           | N/A                   |
| 1N4947 TR           | N/A                   |
| 1N5059 BK           | N/A                   |
| 1N5060 BK           | N/A                   |
| 1N5060 TR           | N/A                   |
| 1N5061 BK           | N/A                   |
| 1N5061 TR           | N/A                   |
| 1N5062 BK           | N/A                   |
| 1N5062 TR           | N/A                   |
| 1N5188 BK           | N/A                   |
| 1N5188 TR           | N/A                   |
| 1N5189 BK           | N/A                   |
| 1N5189 TR           | N/A                   |
| 1N5190 BK           | N/A                   |
| 1N5190 TR           | N/A                   |
| 1N5418-4L BK        | N/A                   |
| 1N5419 BK           | N/A                   |
| 1N5419 TR           | N/A                   |
| 1N5420 BK           | N/A                   |
| 1N5420 TR           | N/A                   |
| 1N5550 BK           | N/A                   |
| 1N5550 TR           | N/A                   |
| 1N5551 BK           | N/A                   |
| 1N5551 TR           | N/A                   |
| 1N5552 BK           | N/A                   |
| 1N5552 TR           | N/A                   |
| 1N5553 BK           | N/A                   |
| 1N5553 TR           | N/A                   |
| 1N5554 BK           | N/A                   |
| 1N5554 TR           | N/A                   |
| 1N5614 BK           | N/A                   |
| 1N5614 TR           | N/A                   |
| 1N5616 BK           | N/A                   |
| 1N5616 TR           | N/A                   |
| 1N5618 BK           | N/A                   |

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| <b>Central Part Number</b> | <b>Suggested Replacement</b> |
|----------------------------|------------------------------|
| 1N5618 TR                  | N/A                          |
| 1N5619 BK                  | N/A                          |
| 1N5619 TR                  | N/A                          |
| 1N5620 BK                  | N/A                          |
| 1N5620 TR                  | N/A                          |
| 1N5621 BK                  | N/A                          |
| 1N5621 TR                  | N/A                          |
| 1N5622 BK                  | N/A                          |
| 1N5622 TR                  | N/A                          |
| 1N5623 BK                  | N/A                          |
| 1N5623 TR                  | N/A                          |
| 1N5624 BK                  | N/A                          |
| 1N5624 TR                  | N/A                          |
| 1N5625 BK                  | N/A                          |
| 1N5625 TR                  | N/A                          |
| 1N5626 BK                  | N/A                          |
| 1N5627 BK                  | N/A                          |
| 1N5627 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.centrasemi.com/submit-inquiry?type=ER> to submit an online inquiry.

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