

CPR5U-020  
CPR5U-040  
CPR5U-060

**GLASS PASSIVATED  
ULTRA FAST RECOVERY RECTIFIERS  
5.0 AMP, 200 THRU 600 VOLT**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CPR5U-020, CPR5U-040, and CPR5U-060 are silicon rectifiers mounted in a hermetically sealed, glass passivated package, designed for 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	<u>-020</u>	<u>-040</u>	<u>-060</u>	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	400	600	V
DC Blocking Voltage	$V_R$	200	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	V
Average Forward Current	$I_O$		5.0		A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$		125		A
Operating and Storage Junction Temperature	$T_J, T_{stg}$		-65 to +175		$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$		55		$^\circ\text{C/W}$

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

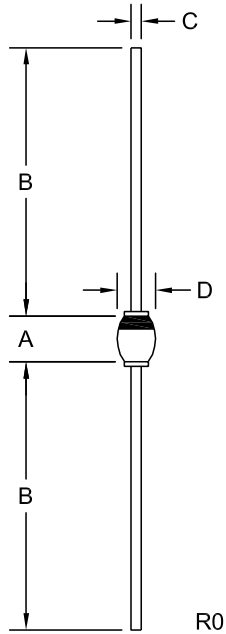
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
$I_R$	$V_R=\text{Rated } V_{RRM}$	0.5	5.0	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$		50	$\mu\text{A}$
$V_F$	$I_F=3.0\text{A}$	1.10	1.25	V
$V_F$	$I_F=3.0\text{A}, T_A=100^\circ\text{C}$		1.15	V
$V_F$	$I_F=5.0\text{A}$	1.20	1.40	V
$V_F$	$I_F=5.0\text{A}, T_A=100^\circ\text{C}$		1.30	V
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$		100	pF
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	25	50	ns

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GPR-4AM CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.165	0.189	4.20	4.80
B	1.024	--	26.00	--
C	0.037	0.042	0.95	1.06
D	0.130	0.175	3.30	4.45

GPR-4AM (REV: R0)

R3 (8-May 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

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