

**CPR6V SERIES**  
**GLASS PASSIVATED**  
**VERY FAST RECOVERY RECTIFIERS**  
**6.0 AMP, 50 THRU 250 VOLT**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CPR6V series devices are silicon, very fast recovery rectifiers manufactured using the epitaxial process and mounted in a hermetically sealed, glass passivated package to ensure high reliability and rigid mechanical support. This series is designed for applications requiring extremely fast recovery times.

**MARKING: FULL PART NUMBER**

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

	<b>SYMBOL</b>	<b>-005</b>	<b>-010</b>	<b>-015</b>	<b>-020</b>	<b>-025</b>	<b>UNITS</b>
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	150	200	250	V
DC Blocking Voltage	$V_R$	50	100	150	200	250	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	175	V
Average Forward Current ( $T_A=70^\circ\text{C}$ )	$I_O$			6.0			A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$			150			A
Operating and Storage Junction Temperature	$T_J, T_{stg}$			-65 to +175			$^\circ\text{C}$
Typical Thermal Resistance (Note 1)	$\Theta_{JL}$			13			$^\circ\text{C/W}$
Typical Thermal Resistance (Note 1)	$\Theta_{JA}$			55			$^\circ\text{C/W}$

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

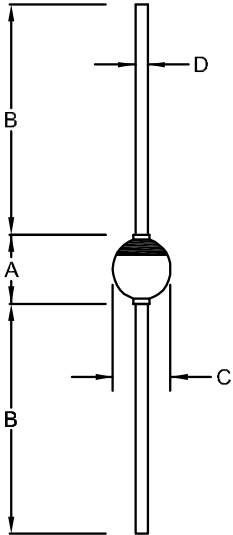
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_R$	$V_R=\text{Rated } V_{RRM}$		5.0	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$	3.0	30	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=150^\circ\text{C}$	50	500	$\mu\text{A}$
$V_F$	$I_F=6.0\text{A}$		0.925	V
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$		30	ns

Note 1: Thermal resistance was measured with the device mounted to a 2" x 2" square FR-4 printed circuit board with 0.375" lead length.

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**GPR-4A CASE - MECHANICAL OUTLINE**



<b>DIMENSIONS</b>				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	-	0.300	-	7.62
B	1.000	-	25.40	-
C (DIA)	0.210		5.33	
D (DIA)	0.040		1.02	

GPR-4A

R1 (23-April 2015)

## 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

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