

1N5188  
1N5189  
1N5190

**FAST RECOVERY, GLASS  
PASSIVATED SILICON RECTIFIER  
3 AMP, 400 THRU 600 VOLTS**



**GPR-4AM CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 1N5188 Series are silicon rectifiers mounted in a hermetically sealed, glass passivated package, designed for general purpose applications where fast reverse recovery times are required.

**MARKING: FULL PART NUMBER**

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

	SYMBOL	1N5188	1N5189	1N5190	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	400	500	600	V
DC Blocking Voltage	$V_R$	400	500	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	280	350	420	V
Average Forward Current	$I_O$		3.0		A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$		80		A
Operating and Storage Junction Temperature	$T_J, T_{stg}$		-65 to +200		$^{\circ}\text{C}$

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

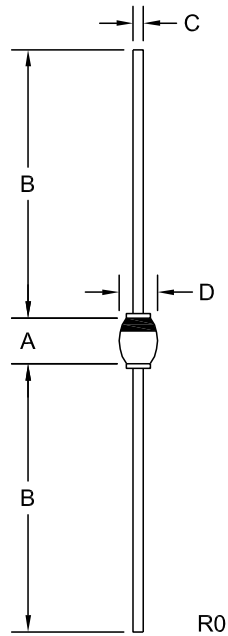
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=\text{Rated } V_{RRM}$		2.0	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^{\circ}\text{C}$		100	$\mu\text{A}$
$V_F$	$I_F=9.0\text{A}, t_p=380\mu\text{s}$	0.9	1.5	V
$BV_R$	$I_R=100\mu\text{A}$ (1N5188)	480		V
$BV_R$	$I_R=100\mu\text{A}$ (1N5189)	550		V
$BV_R$	$I_R=100\mu\text{A}$ (1N5190)	660		V
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (1N5188)		250	ns
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (1N5189)		300	ns
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (1N5190)		400	ns

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#### GPR-4AM CASE - MECHANICAL OUTLINE



DIMENSIONS				
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)

R0 (5-March 2012)

## 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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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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