

1N5416 THRU 1N5420

FAST RECOVERY GLASS  
PASSIVATED SILICON RECTIFIERS  
3.0 AMP, 100 THRU 600 VOLT



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 1N5416 series devices are silicon rectifiers mounted in a hermetically sealed, glass passivated package, designed for general purpose applications where fast reverse recovery times and high reliability are required.

GPR-4AM CASE

**MARKING: FULL PART NUMBER**

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

	SYMBOL	1N5416	1N5417	1N5418	1N5419	1N5420	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	200	400	500	600	V
DC Blocking Voltage	$V_R$	100	200	400	500	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	350	420	V
Average Forward Current ( $T_A=55^\circ\text{C}$ )	$I_O$			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)

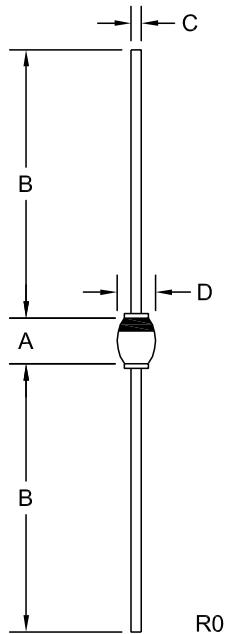
SYMBOL	TEST CONDITIONS	1N5416		1N5417		1N5418		1N5419		1N5420		UNITS
		MIN	MAX									
$I_R$	$V_R=\text{Rated } V_{RRM}$	-	1.0	-	1.0	-	1.0	-	1.0	-	1.0	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$	-	20	-	20	-	20	-	20	-	20	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=175^\circ\text{C}$	-	2.0	-	2.0	-	2.0	-	2.0	-	2.0	mA
$BV_R$	$I_R=50\mu\text{A}$	110	-	220	-	440	-	550	-	660	-	V
$V_F$	$I_F=3.0\text{A}$	-	1.1	-	1.1	-	1.1	-	1.1	-	1.1	V
$V_F$	$I_F=9.0\text{A}$	-	1.5	-	1.5	-	1.5	-	1.5	-	1.5	V
$C_J$	$V_R=12\text{V}, f=1.0\text{MHz}$	-	175	-	150	-	120	-	110	-	100	pF
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	-	150	-	150	-	150	-	250	-	400	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 (19-June 2019)

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## 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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