

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

**CR1F-020GPP SERIES**

**GLASS PASSIVATED JUNCTION  
FAST RECOVERY RECTIFIER  
1.0 AMP, 200 THRU 1000 VOLTS**

**JEDEC DO-41 CASE****DESCRIPTION**

The CENTRAL SEMICONDUCTOR CR1F-020GPP Series types are 1.0 Amp Glass Passivated Junction Fast Recovery Silicon Rectifiers which are high quality, well constructed, highly reliable components designed for high speed switching applications. **THIS DEVICE IS MANUFACTURED WITH A GLASS PASSIVATED CHIP FOR OPTIMUM RELIABILITY.**

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

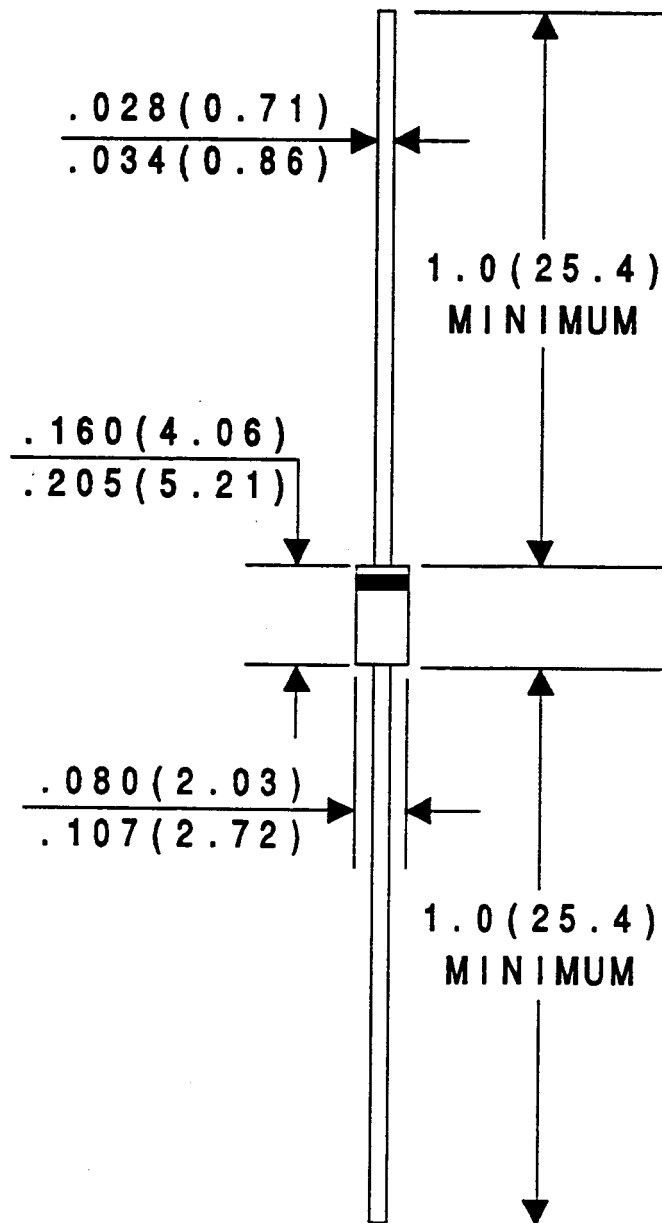
	<u>SYMBOL</u>	<u>CR1F-020 GPP</u>	<u>CR1F-040 GPP</u>	<u>CR1F-060 GPP</u>	<u>CR1F-080 GPP</u>	<u>CR1F-100 GPP</u>	<u>UNITS</u>
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	560	700	V
Average Forward Current ( $T_A=55^{\circ}\text{C}$ )	$I_O$			1.0			A
Peak Forward Surge Current	$I_{FSM}$			30			A
Operating and Storage							
Junction Temperature	$T_J, T_{stg}$			-65 to +175			$^{\circ}\text{C}$
Thermal Resistance	$\theta_{JA}$			50			$^{\circ}\text{C/W}$

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

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>TYP</u>	<u>MAX</u>	<u>UNITS</u>
$V_F$	$I_F=1.0\text{A}$			1.3	V
$I_R$	$V_R=\text{Rated } V_{RRM}$			5.0	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^{\circ}\text{C}$			100	$\mu\text{A}$
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CR1F-020GPP, -040GPP)			150	ns
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CR1F-060GPP)			250	ns
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CR1F-080GPP, -100GPP)			500	ns
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$		15		pF

(SEE REVERSE FOR MECHANICAL OUTLINE)

# JEDEC DO-41 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).