



Micro Commercial Components
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RGP20A THRU RGP20M

2.0 Amp Glass Passivated Junction Fast Recovery Rectifiers 50 to 1000 Volts

Features

- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction
- 2.0 amperes operation at $T_A=55^\circ\text{C}$ and with no thermal runaway.
- Typical I_R less than 0.2uA

Maximum Ratings

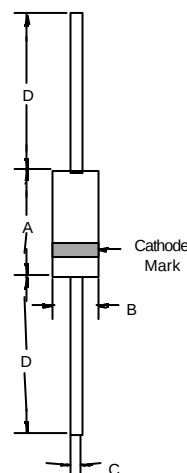
- Operating Temperature: -55°C to $+150^\circ\text{C}$
- Storage Temperature: -55°C to $+150^\circ\text{C}$
- Typical Thermal Resistance: 22°C/W Junction to Ambient

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
RGP20A	50V	35V	50V
RGP20B	100V	70V	100V
RGP20D	200V	140V	200V
RGP20G	400V	280V	400V
RGP20J	600V	420V	600V
RGP20K	800V	560V	800V
RGP20M	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Average Forward Current	$I_{F(AV)}$	2.0 A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	80A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.3V	$I_{FM} = 2.0\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0uA 200uA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Maximum Reverse Recovery Time RGP20A-20G RGP20J RGP20K-20M	T_{rr}	150nS 250nS 500nS	$I_F = 0.5\text{A}, I_R = 1.0\text{A},$ $I_r = 0.25\text{A}$
Typical Junction Capacitance	C_J	35pF	Measured at $f = 1.0\text{MHz}$ $V_R = 4.0\text{V}$

DO-201AE

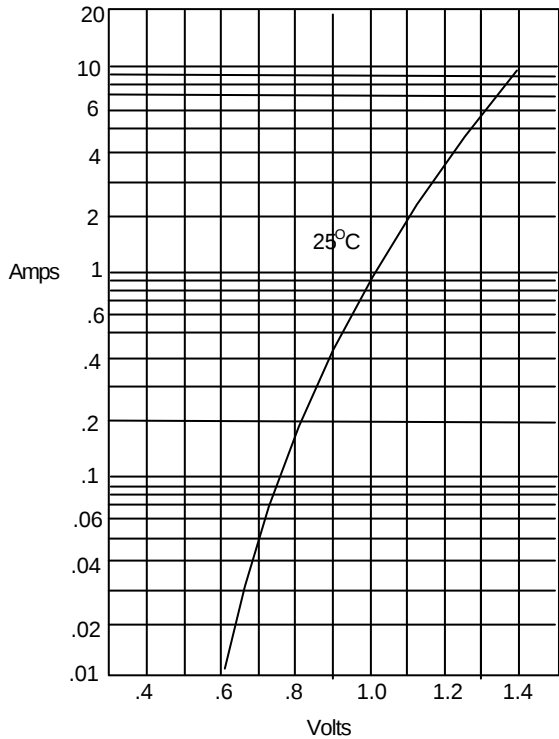


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.370	---	9.50	
B	---	.250	---	6.40	
C	.038	.042	0.96	1.06	
D	1.000	---	25.40	---	

RGP20A thru RGP20M

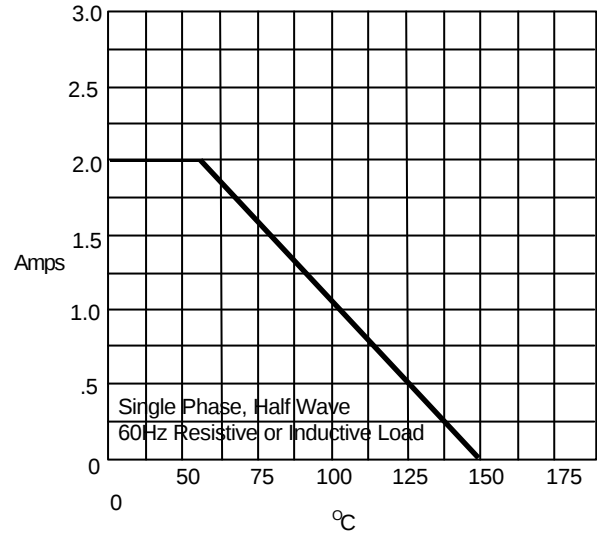


Figure 1
Typical Forward Characteristics



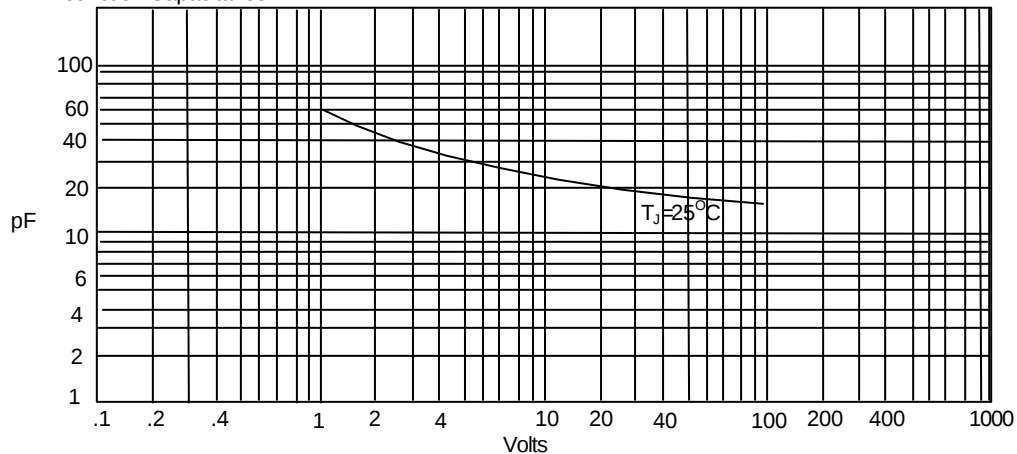
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

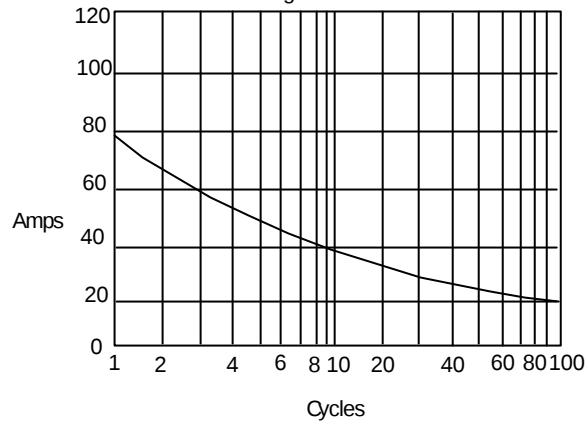
Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

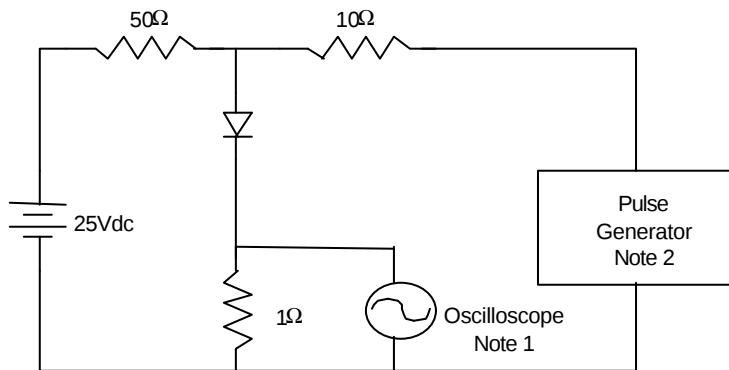
RGP20A thru RGP20M

Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles

Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram



Notes:

1. Rise Time = 7ns max.
Input impedance = 1 megohm, 22pF
2. Rise Time = 10ns max.
Source impedance = 50 ohms
3. Resistors are non-inductive

