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RGP30A THRU RGP30M

Features

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

Maximum Ratings

- Operating Temperature: -55°C to $+150^{\circ}\text{C}$
- Storage Temperature: -55°C to $+150^{\circ}\text{C}$
- Typical Thermal Resistance: 25°C/W Junction to Ambient

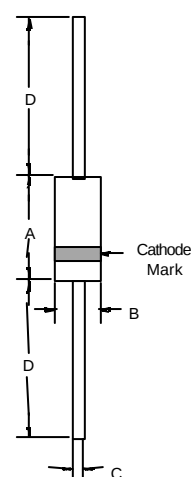
Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
RGP30A	50V	35V	50V
RGP30B	100V	70V	100V
RGP30D	200V	140V	200V
RGP30G	400V	280V	400V
RGP30J	600V	420V	600V
RGP30K	800V	560V	800V
RGP30M	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Average Forward Current	$I_{F(AV)}$	3.0 A	$T_A = 55^{\circ}\text{C}$
Peak Forward Surge Current	I_{FSM}	125A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.3V	$I_F = 3.0A$;
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0uA 100uA	$T_A=25^{\circ}\text{C}$ $T_A=150^{\circ}\text{C}$
Maximum Reverse Recovery Time RGP30A-30G RGP30J RGP30K-30M	T_{rr}	150nS 250nS 500nS	$T_J = 25^{\circ}\text{C}$ $I_F=0.5A$ $I_R=1.0A$ $I_{RR}=0.25A$
Typical Junction Capacitance	C_J	60pF	Measured at 1.0MHz, $V_R=4.0V$

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

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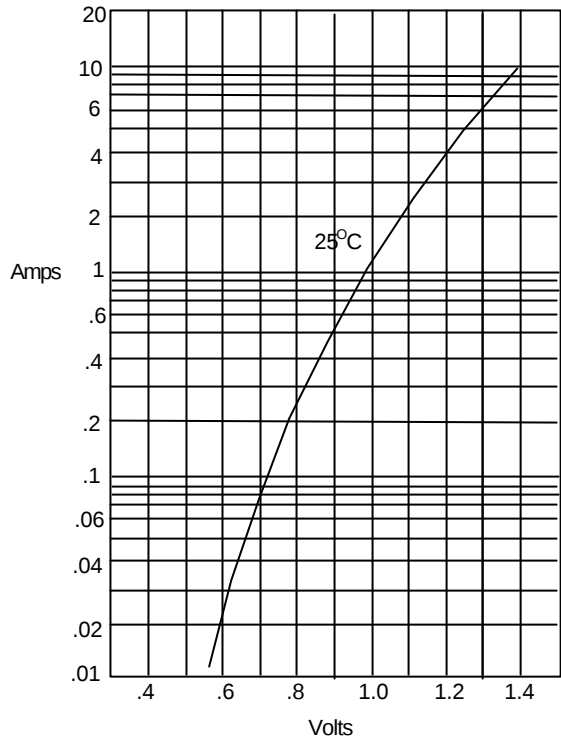


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.370	---	9.50	
B	---	.250	---	6.40	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	



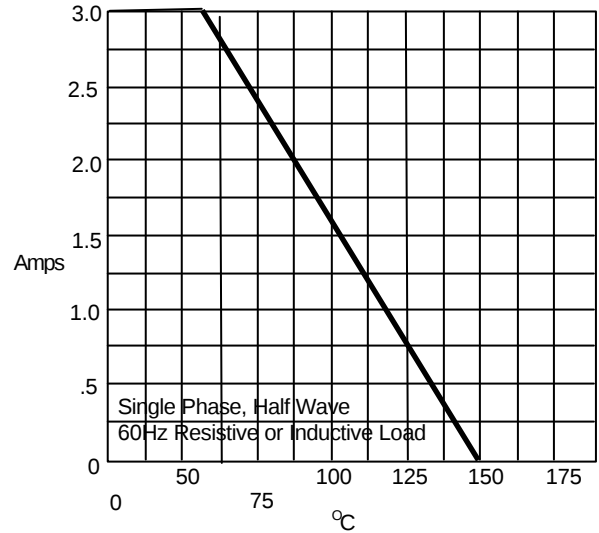
RGP30A thru RGP30M

Figure 1
Typical Forward Characteristics



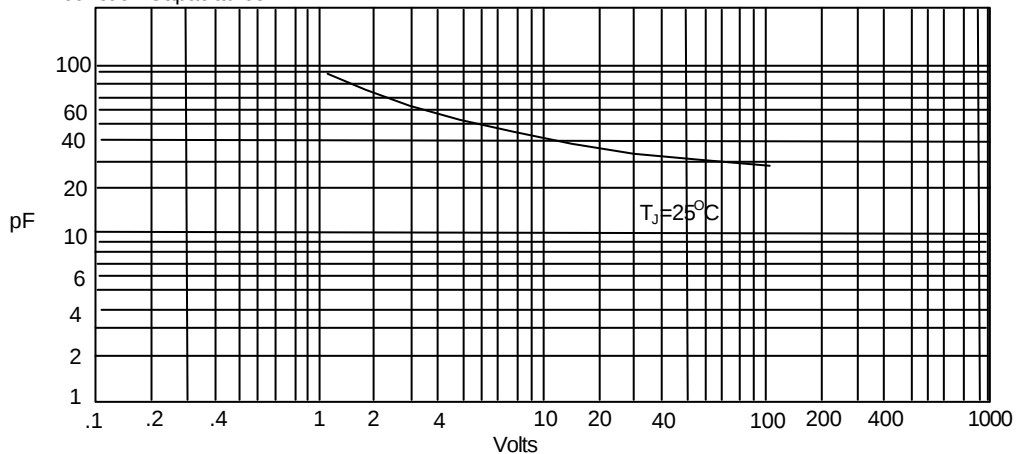
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

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

RGP30A thru RGP30M

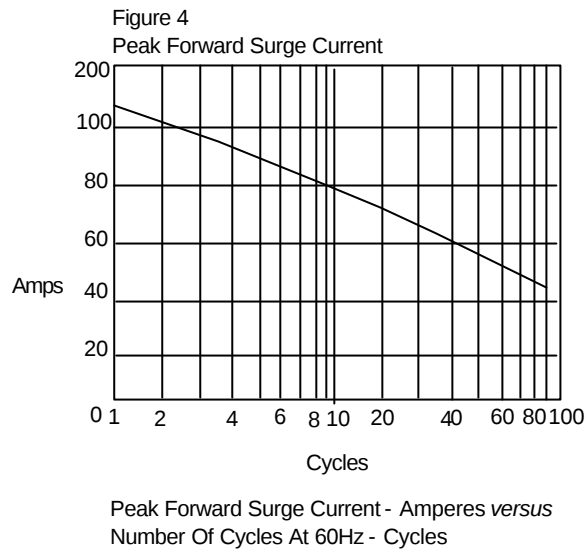


Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram

