

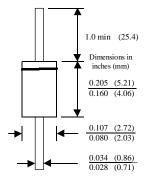
# Discrete POWER & Signal Technologies

## **RGP10A - RGP10M**

#### **Features**

- 1.0 ampere operation at T<sub>A</sub> = 55°C with no thermal runaway.
- High temperature metallurgically bonded construction.
- Glass passivated cavity-free junction.
- Typical I<sub>R</sub> less than 1μA.
- Fast switching for high efficiency.





# 1.0 Ampere Glass Passivated Fast Recovery Rectifiers

## **Absolute Maximum Ratings\***

T<sub>A</sub> = 25°C unless otherwise noted

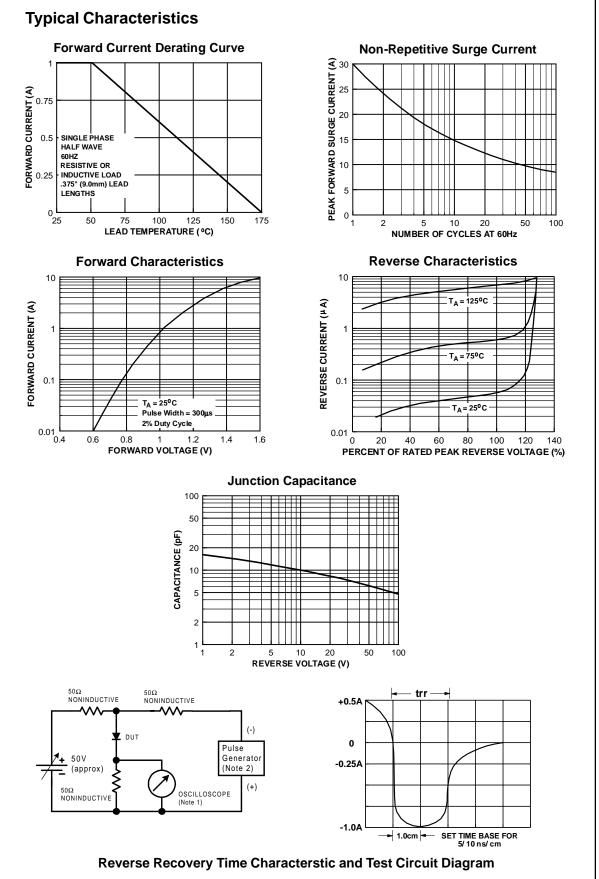
Symbol	Parameter	Value	Units
lo	Average Rectified Current .375 " lead length @ T <sub>L</sub> = 55°C	1.0	Α
İf(surge)	Peak Forward Surge Current  8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	А
P <sub>D</sub>	Total Device Dissipation Derate above 25°C	2.5 17	W mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	50	°C/W
T <sub>stg</sub>	Storage Temperature Range	-65 to +175	°C
TJ	Operating Junction Temperature	-65 to +175	°C

<sup>\*</sup>These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### **Electrical Characteristics**

T<sub>A</sub> = 25°C unless otherwise noted

Parameter	Device						Units	
	10A	10B	10D	10G	10J	10K	10M	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V <sub>R</sub> )	50	100	200	400	600	800	1000	V
Maximum Reverse Current								
@ rated $V_R$ $T_A = 25^{\circ}C$				5.0				μΑ
T <sub>A</sub> = 150°C				200				μΑ
Maximum Reverse Recovery Time	150 250					5	00	nS
$I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}, I_{rr} = 0.25 \text{ A}$								
Maximum Forward Voltage @ 1.0 A	1.3							V
Typical Junction Capacitance $V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$				15				pF



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FACT Quiet Series  $^{\text{TM}}$  Quiet Series  $^{\text{TM}}$  SuperSOT  $^{\text{TM}}$ -3 SuperSOT  $^{\text{TM}}$ -6 GTO  $^{\text{TM}}$  SuperSOT  $^{\text{TM}}$ -8 HiSeC  $^{\text{TM}}$  TinyLogic  $^{\text{TM}}$ 

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#### **Definition of Terms**

Datasheet Identification	Product Status	Definition				
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