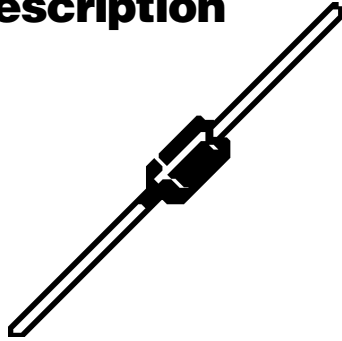


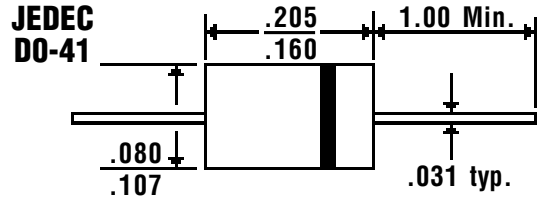
1.0 Amp FAST SWITCHING MEGARECTIFIERS

RGP10A... 10M Series

Description



Mechanical Dimensions

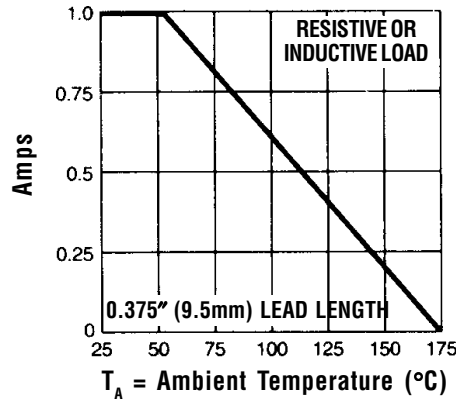


Features

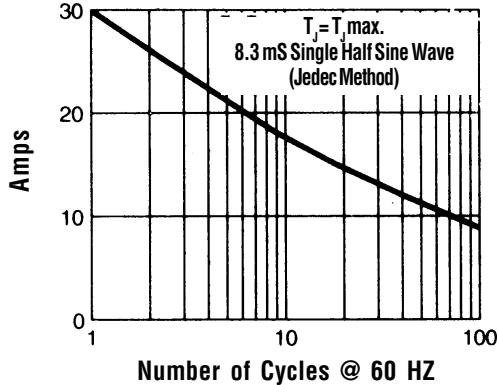
- HIGH TEMPERATURE METALLURGICALLY BONDED CONSTRUCTION
- SINTERED GLASS CAVITY-FREE JUNCTION
- 1.0 AMP OPERATION @ $T_A = 55^\circ\text{C}$, WITH NO THERMAL RUNAWAY
- TYPICAL $I_R < 0.1 \mu\text{Amp}$

| Electrical Characteristics @ 25°C. | RGP10A . . . 10M Series | | | | | | | | Units |
|---|-------------------------|--------|--------|---------------------------|--------|---------|--------|--|--------------------|
| Maximum Ratings | RGP10A | RGP10B | RGP10D | RGP10G | RGP10J | RGP10K | RGP10M | | |
| Peak Repetitive Reverse Voltage... V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | | Volts |
| RMS Reverse Voltage... $V_{R(rms)}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | | Volts |
| DC Blocking Voltage... V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | | Volts |
| Average Forward Rectified Current... $I_{F(av)}$ Current 3/8" Lead Length @ $T_A = 75^\circ\text{C}$ | | | | 1.0 | | | | | Amps |
| Non-Repetitive Peak Forward Surge Current... I_{FSM} 8.3mS, 1/2 Sine Wave Superimposed on Rated Load | | | | 30 | | | | | Amps |
| Forward Voltage @ 1.0A... V_F | | | | 1.3 | | | | | Volts |
| Full Load Reverse Current... $I_R(av)$ Full Cycle Average @ $T_A = 55^\circ\text{C}$ | | | | 100 | | | | | μAmps |
| DC Reverse Current... I_R @ Rated DC Blocking Voltage | | | | $T_A = 25^\circ\text{C}$ | | | | | μAmps |
| | | | | $T_A = 150^\circ\text{C}$ | | | | | μAmps |
| Typical Junction Capacitance... C_J (Note 1) | | | | 15 | | | | | pF |
| Typical Thermal Resistance... $R_{\theta JA}$ (Note 2) | | | | 55 | | | | | $^\circ\text{C/W}$ |
| Typical Reverse Recovery Time... t_{RR} (Note 3) | | | | < 150 | > 250 | < 500 > | | | nS |
| Operating & Storage Temperature Range... T_J, T_{STRG} | | | | -65 to 175 | | | | | $^\circ\text{C}$ |

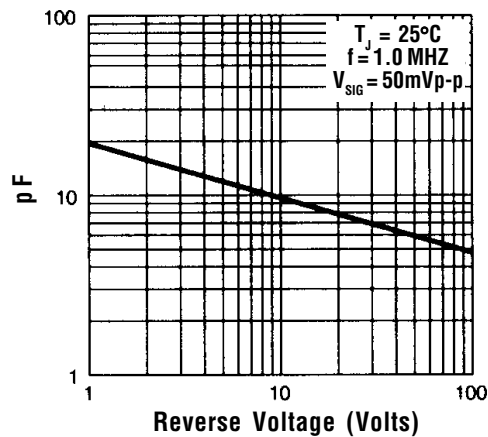
Forward Current Derating Curve



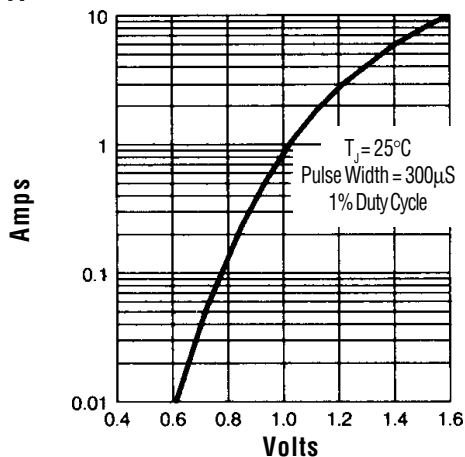
Non-Repetitive Peak Forward Surge Current



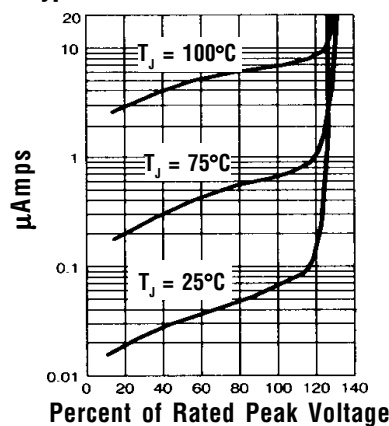
Typical Junction Capacitance



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 HZ Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

- NOTES:**
1. Measured @ 1 MHz and applied reverse voltage of 4.0V.
 2. Thermal Resistance from Junction to Ambient at 3/8" Lead Length, P.C. Board Mounted.
 3. Reverse Recovery Condition $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.