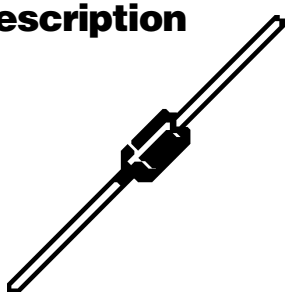
Data Sheet

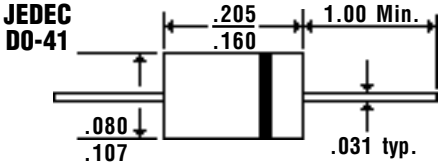
1.0 Amp FAST SWITCHING MEGARECTIFIERS

RGP10A...10M Series

Description



Mechanical Dimensions

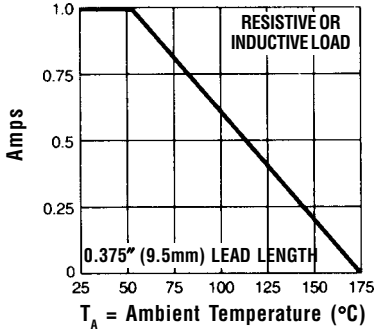


Features

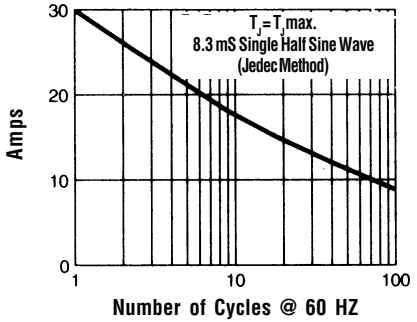
- **HIGH TEMPERATURE METALLURGICALLY BONDED CONSTRUCTION**
- **SINTERED GLASS CAVITY-FREE JUNCTION**
- **1.0 AMP OPERATION @ T_A = 55°C, WITH NO THERMAL RUNAWAY**
- **TYPICAL I_R < 0.1 μAmp**

Electrical Characteristics @ 25°C.	RGP10A	RGP10B	RGP10D	RGP10G	RGP10J	RGP10K	RGP10M	Units
Maximum Ratings								
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°C	..... 1.0							Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} 8.3mS, ½ 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°C	..... 100							μAmps
DC Reverse Current...I_R @ Rated DC Blocking Voltage T_A = 25°C	..... 5.0							μAmps
T_A = 150°C	..... 200							μAmps
Typical Junction Capacitance...C_J *(Note 1)*	..... 15							pF
Typical Thermal Resistance...$R_{\theta JA}$ *(Note 2)*	..... 55							°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							°C

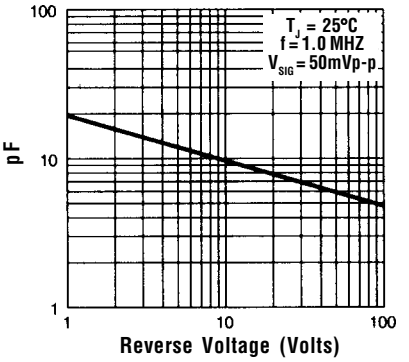
Forward Current Derating Curve



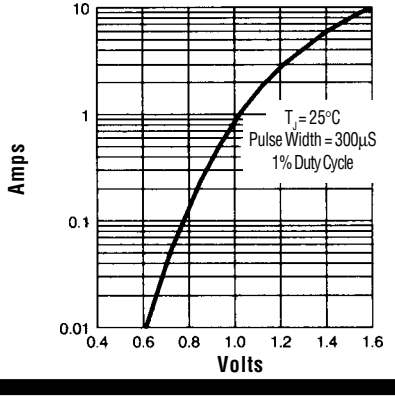
Non-Repetitive Peak Forward Surge Current



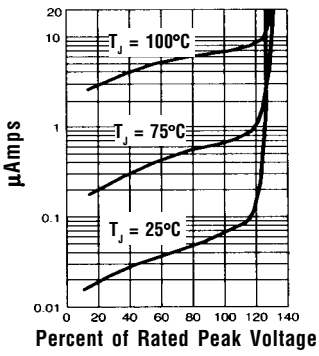
Typical Junction Capacitance



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 = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.