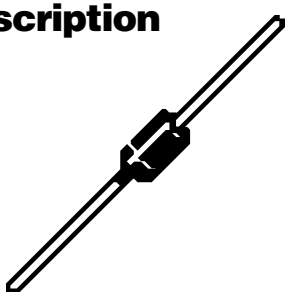
Data Sheet

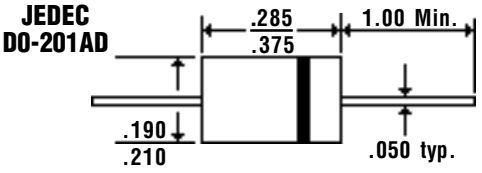
3.0 Amp FAST SWITCHING MEGARECTIFIERS

RGP30A...30M Series

Description



Mechanical Dimensions



Features

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

Electrical Characteristics @ 25°C.	RGP30A . . . 30M Series							Units
Maximum Ratings	**RGP30A**	**RGP30B**	**RGP30D**	**RGP30G**	**RGP30J**	**RGP30K**	**RGP30M**	
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 = 55°C	3.0							Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} 8.3mS, ½ Sine Wave Superimposed on Rated Load	125							Amps
Forward Voltage @ Rated Forward Current and 25°C...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 = 125°C	100							μAmps
Typical Junction Capacitance...C_J *(Note 1)*	60							pF
Typical Thermal Resistance...$R_{\theta JA}$ *(Note 2)*	16							°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

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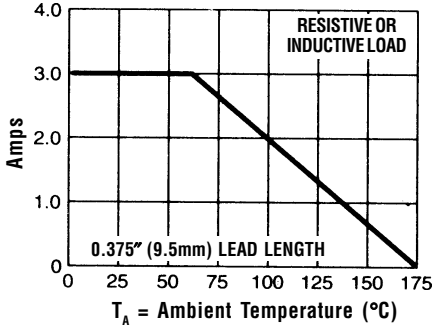
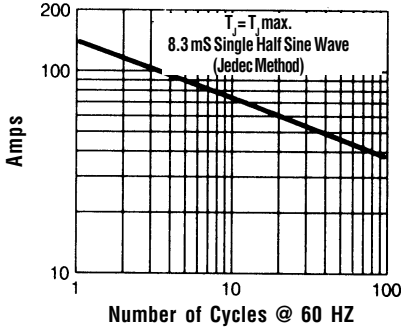
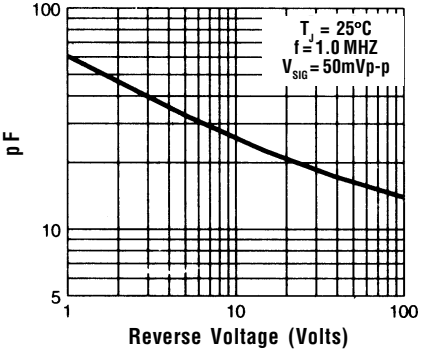
Forward Current Derating Curve



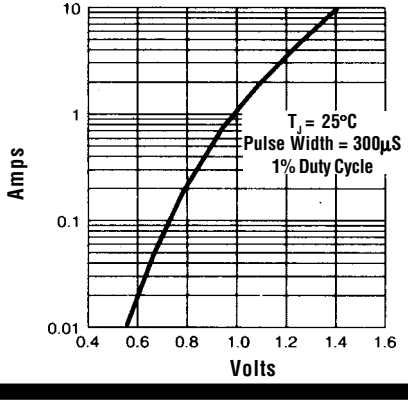
Non-Repetitive Peak Forward Surge Current



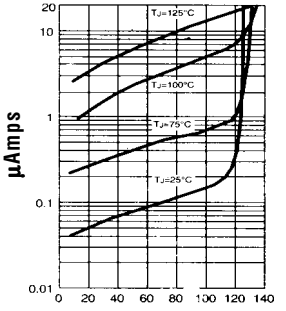
Typical Junction Capacitance



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.