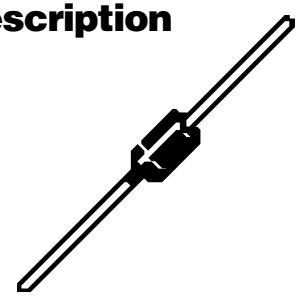
Semiconductor *Data Sheet*

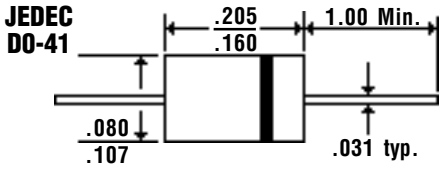
1.0 Amp MEGARECTIFIERS

GP10A . . . 10M Series

Description



Mechanical Dimensions

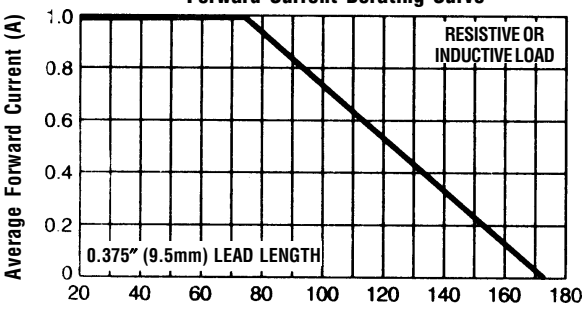


Features

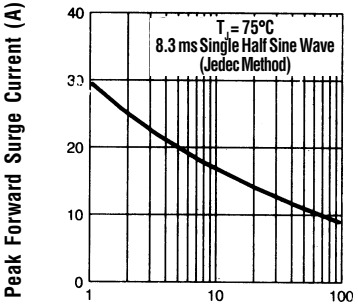
- **HIGH TEMPERATURE METALLURGICALLY BONDED CONSTRUCTION**
- **SINTERED GLASS CAVITY-FREE JUNCTION**
- **1.0 AMP OPERATION @ T_A = 55°C, WITH NO THERMAL RUNAWAY**
- **TYPICAL I_R < 0.1 μAmp**

	GP10A . . . 10M Series							Units
Maximum Ratings	**GP10A**	**GP10B**	**GP10D**	**GP10G**	**GP10J**	**GP10K**	**GP10M**	
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...$I_{F(av)}$ 3/8" Lead Length @ T_A = 75°C	1.0							Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} ½ Sine Wave Superimposed on Rated Load	30							Amps
Operating & Storage Temperature Range...T_J, T_{STRG}	-65 to 175							°C
Electrical Characteristics								
Maximum Forward Voltage @ 1.0A...V_F	< 1.1 >				< 1.2 >			Volts
Maximum Full Load Reverse Current...I_R(av) Full Cycle Average @ T_A = 75°C	30							μAmps
Maximum DC Reverse Current...I_R @ Rated DC Blocking Voltage T_A = 25°C	5.0							μAmps
T_A = 125°C	50							μAmps
Typical Junction Capacitance...C_J *(Note 1)*	< 8.0 >				< 7.0 >			pF
Typical Thermal Resistance...$R_{\theta JA}$ *(Note 2)*	55							°C/W
Typical Reverse Recovery Time...t_{RR} *(Note 3)*	2.0							μs

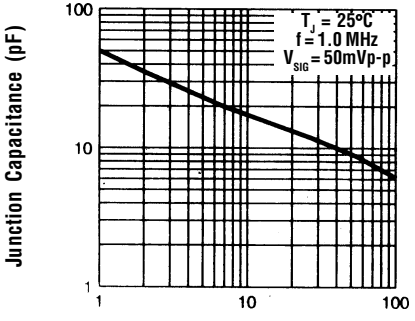
Forward Current Derating Curve



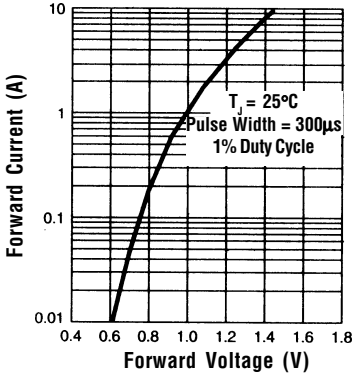
Non-Repetitive Peak Forward Surge Current



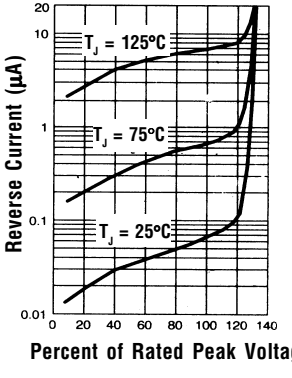
Typical Junction Capacitance



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.