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Data Sheet No.: GPPD-100-A

T.01-13

1 AMP SOFT GLASS-PASSIVATED SILICON DIODES

FEATURES:

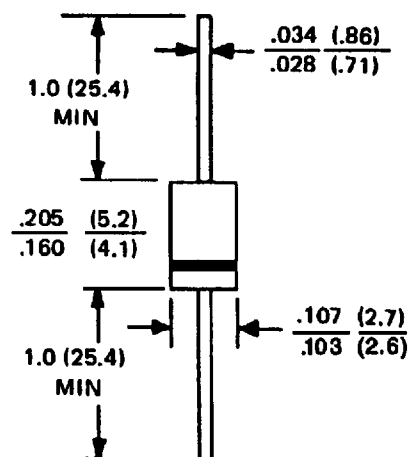
- Unique soft glass P/N junction passivation
- Void-free chip soldering
- Ultra-low current leakage
- Low forward voltage drop
- High surge current capability
- 1A at $T_A = 75^\circ\text{C}$ with no thermal runaway
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- Case: JEDEC DO-41, molded plastic
- Terminals: Plated axial leads, solderable per MIL-STD-202, method 208
- Mounting Position: Any
- Polarity: Color band denotes cathode end
- Weight: 0.35 grams

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1 Amp

DO-41



Dimensions in inches & (millimeters)

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATING @ $T_A = 25^\circ\text{C}$ (unless otherwise specified)	SYMBOL									UNITS
Series Number		1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G		
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000		Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700		
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000		
Maximum Average Forward Rectified Current 0.375 in. (9.5mm) Lead Length @ $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1								Amps
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	50								Amps
Maximum Instantaneous Forward Voltage at 1 Amp	V_F	1								Volts
Maximum DC Reverse Current @: $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	I_R	0.2 1								μA
Maximum Full Load Reverse Current Full Cycle Average 0.375 in. (9.5mm) Lead Length @ $T_L = 75^\circ\text{C}$		30								μA
Typical Junction Capacitance (Note 1)	C_J	10								pf
Typical Thermal Resistance $R\theta_{JA}$ (Note 2)	$R\theta_{JC}$	45								$^\circ\text{C/W}$
Operating & Storage Temperature Range	T_J, T_{STG}	-65 to +175								$^\circ\text{C}$

NOTES: (1) Measured at 1MHz & applied reverse voltage of 4V DC.
(2) Thermal resistance from junction ambient 0.375 in. (9.5mm) lead length.



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RATING & CHARACTERISTICS CURVES (1N4001G-4007G)

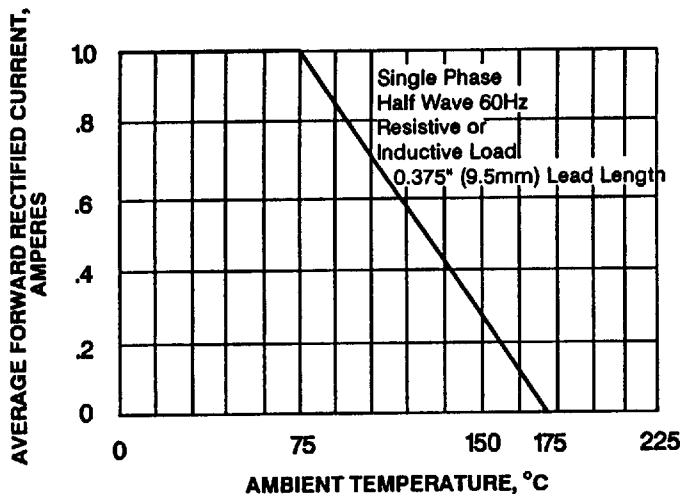


Fig. 1: Typical forward current derating curve.

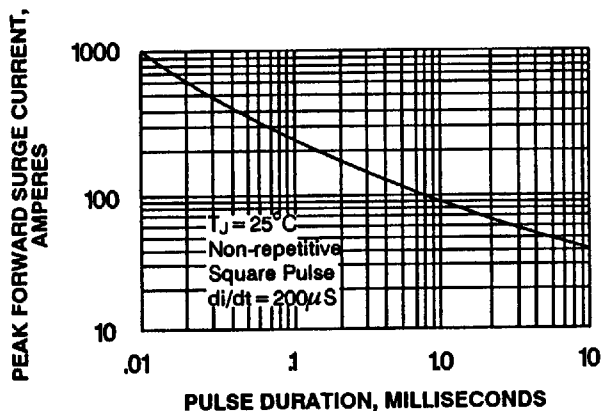


Fig. 3: Peak forward surge current.

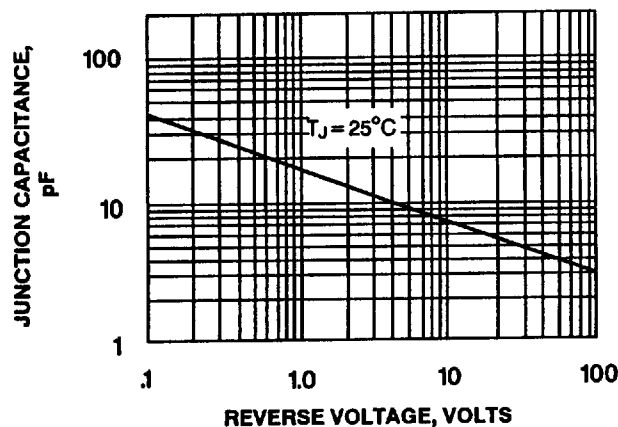


Fig. 5: Typical junction capacitance.

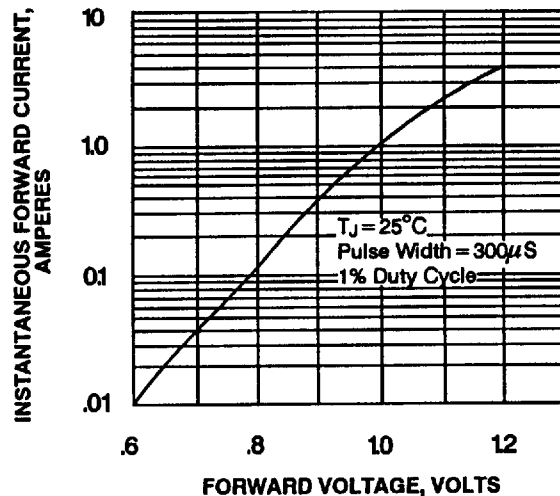


Fig. 2: Typical forward characteristics.

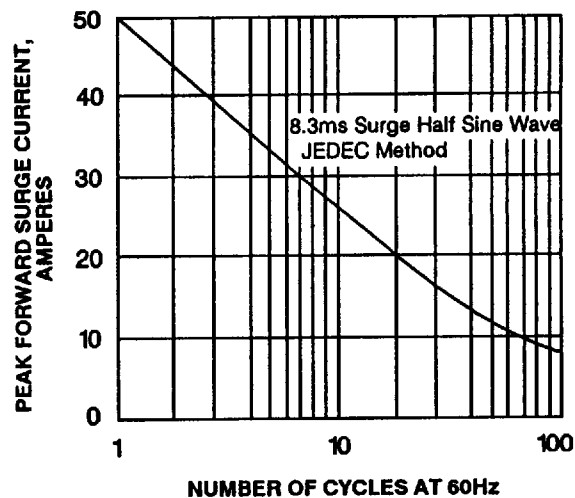


Fig. 4: Maximum non-repetitive forward surge current.

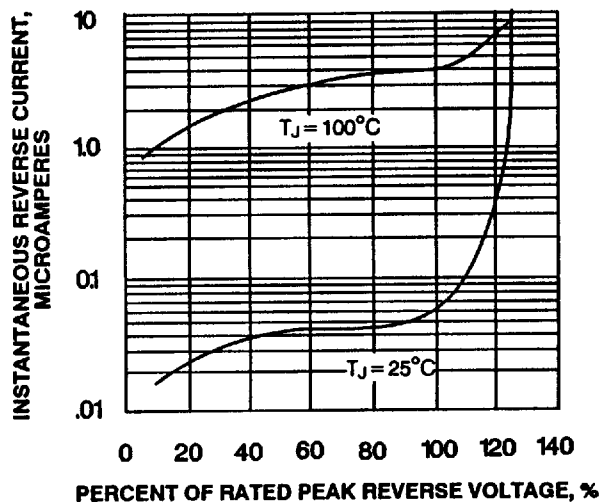


Fig. 6: Typical reverse characteristics.