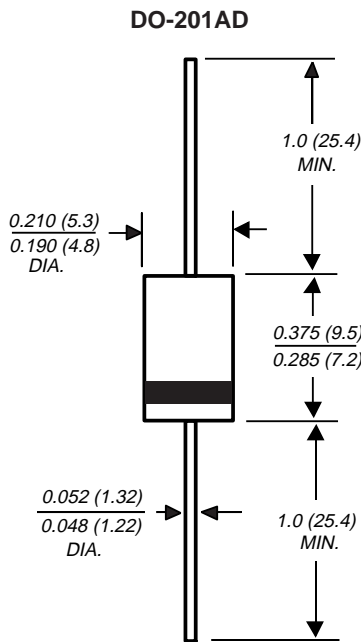


## Medium-Switching Plastic Rectifier

Reverse Voltage 500 to 800 V  
 Forward Current 3.0 A



Dimensions in inches and (millimeters)

### Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High surge current capability
- Construction utilizes void-free molded plastic technique
- High forward current operation
- Fast switching for high efficiency
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### Mechanical Data

**Case:** JEDEC DO-201AD, molded plastic body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.04 oz., 1.1 g

**Packaging codes/options:**

1/Bulk - 1.5K per container, 15K per box

4/1.4K per 13" reel, 5.6K per box

23/1K per Ammo. mag., 9K per box

### Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GI910	GI911	GI912	GI914	GI916	GI918	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=90^\circ\text{C}$	$I_{F(AV)}$	3.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100						A
Typical thermal resistance <sup>(1)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	22 8.0						°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +150						°C

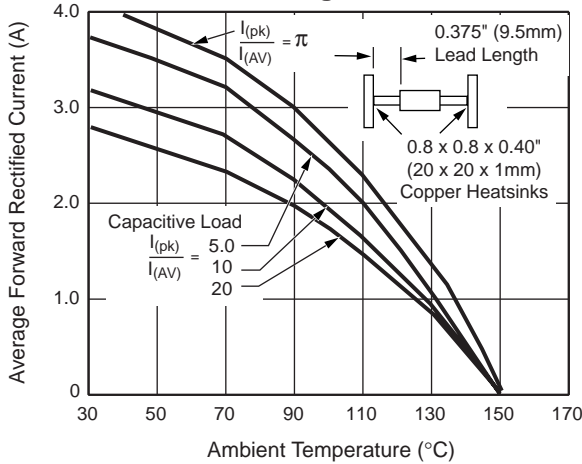
### Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GI910	GI911	GI912	GI914	GI916	GI918	Unit
Maximum instantaneous forward voltage at 3.0A 9.4A, $T_J=175^\circ\text{C}$	$V_F$	1.25 1.10						V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	10 300						$\mu\text{A}$
Maximum reverse recovery time at $I_F=1.0\text{A}$ , $V_R=30\text{V}$ , $di/dt=50\text{A}/\mu\text{s}$ , $I_{rr}=10\%$ $I_{RM}$	$t_{rr}$	750						ns
Maximum reverse recovery time at $I_F=1.0\text{A}$ , $V_R=30\text{V}$ , $di/dt=50\text{A}/\mu\text{s}$ , $I_{rr}=10\%$ $I_{RM}$	$I_{RM(REC)}$	2.0						A
Typical junction capacitance at 4.0V, 1MHz	$C_J$	28						pF

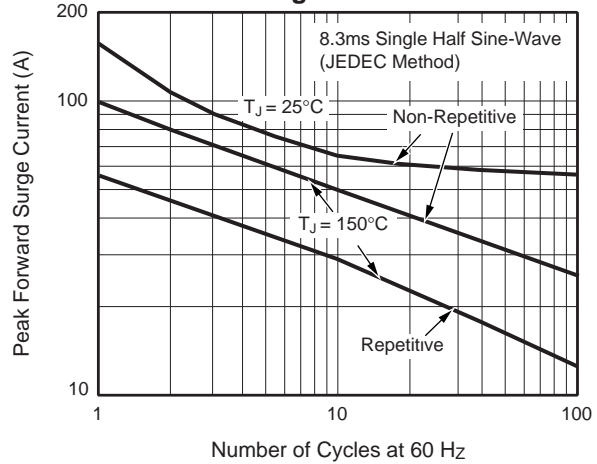
**Notes:** (1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, with both leads equally heat sink

## Ratings and Characteristic Curves (T<sub>A</sub> = 25°C unless otherwise noted)

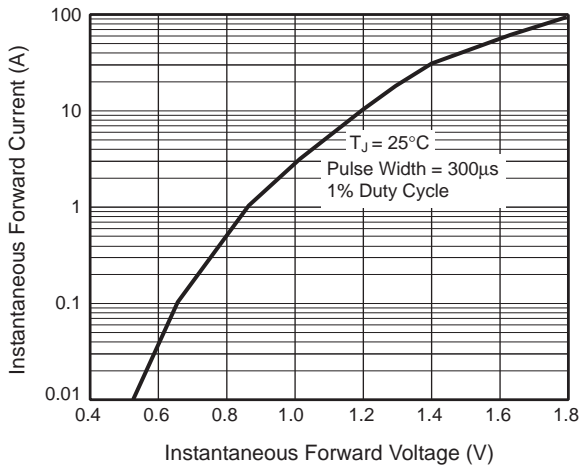
**Fig. 1 – Forward Current Derating Curves**



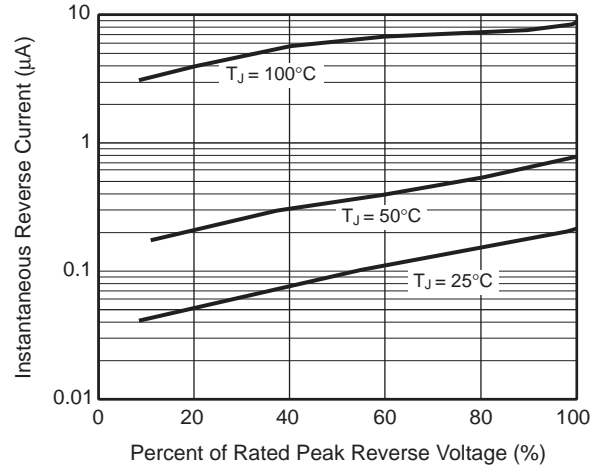
**Fig. 2 – Maximum Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**

