

**31GF7**

**ULTRAFAST EFFICIENT  
GLASS PASSIVATED RECTIFIER**  
VOLTAGE: 700V      CURRENT: 3.0A

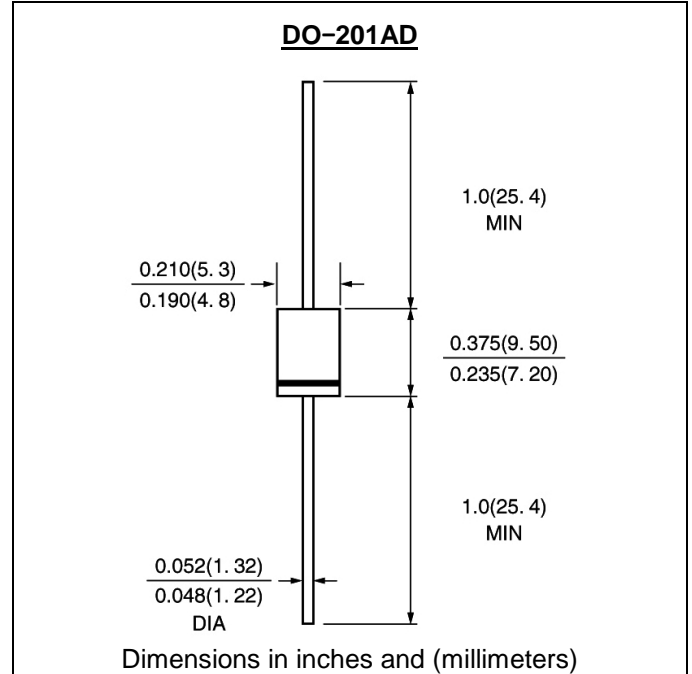


**FEATURE**

Low power loss  
High surge capability  
Ultra-fast recovery time for high efficiency  
High temperature soldering guaranteed  
250°C/10sec/0.375" lead length at 5 lbs tension

**MECHANICAL DATA**

Terminal: Plated axial leads solderable per MIL-STD 750, method 2026  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any



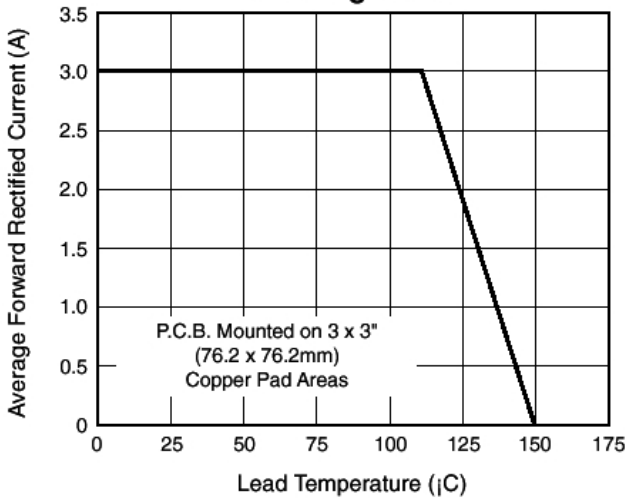
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

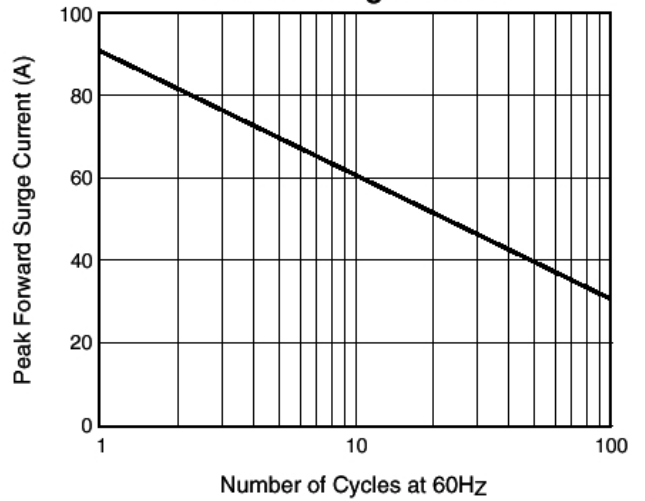
	SYMBOL	31GF7	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	700	V
Maximum RMS Voltage	V <sub>rms</sub>	490	V
Maximum DC blocking Voltage	V <sub>dc</sub>	700	V
Maximum Average Forward Rectified Current, 0.375" lead length at TL =110°C	I <sub>f(av)</sub>	3.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	90	A
Maximum Forward Voltage at Forward current At3.0A (Note 1)	V <sub>f</sub>	1.6	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =120°C	I <sub>r</sub>	10.0 100.0	μ A μ A
Maximum Reverse Recovery Time (Note 2)	T <sub>rr</sub>	30	nS
Typical Thermal Resistance	R(ja)	30.0	°C/W
Storage and Operating Junction Temperature	T <sub>stg</sub> , T <sub>j</sub>	-40 to +150	°C

Note:  
1. Pulse test:300uS pulse width, 1% duty cycle  
2. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A

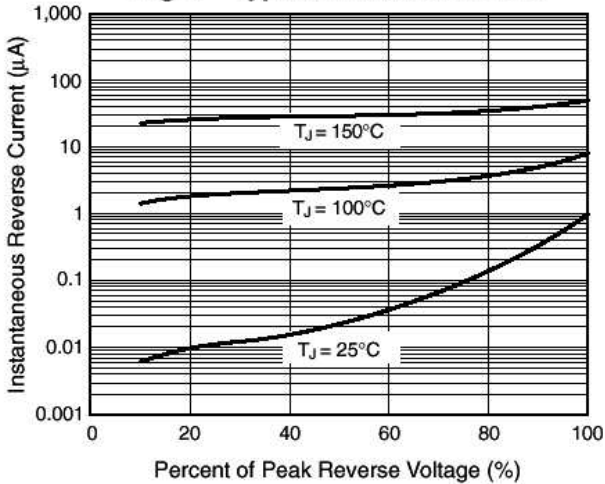
**Fig. 1 – Maximum Forward Current Derating Curve**



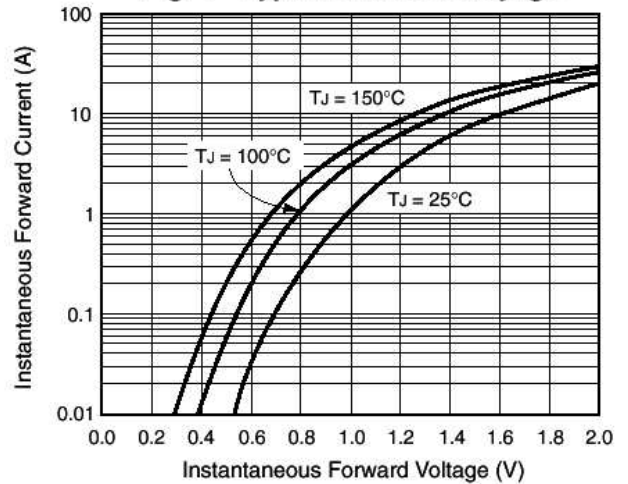
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Reverse Current**



**Fig. 4 – Typical Forward Voltyage**



**Fig. 5 – Typical Junction Capacitance**

