

# UG1J THRU UG1K

## SUPERFAST EFFICIENT GLASS PASSIVATED RECTIFIER

VOLTAGE: 600V to 800V

CURRENT: 1.0A



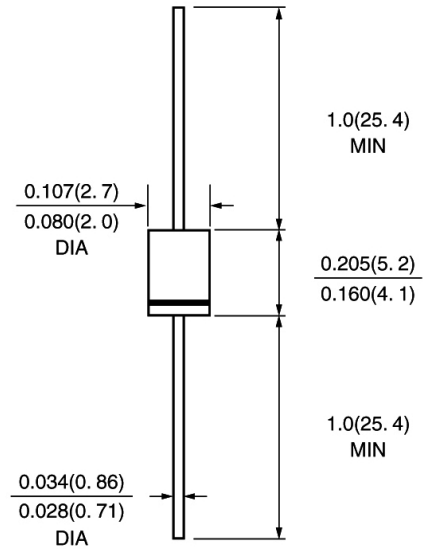
### FEATURE

Low power loss  
High surge capability  
Glass passivated chip junction  
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

### DO-41\DO-204AL



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

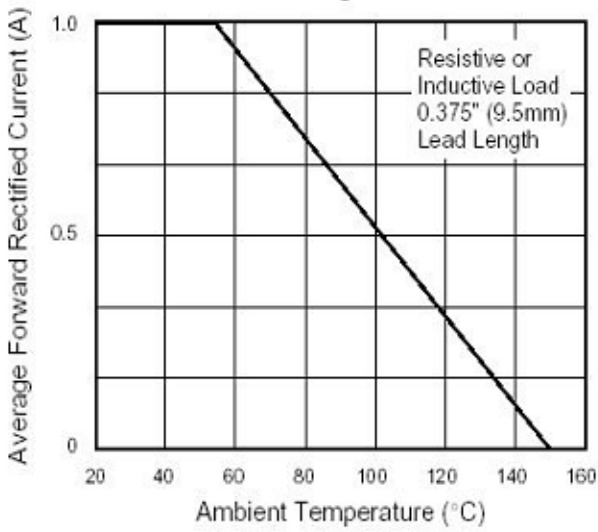
(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	UG1J	UG1K	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	600	800	V
Maximum RMS Voltage	V <sub>rms</sub>	420	560	V
Maximum DC blocking Voltage	V <sub>dc</sub>	600	800	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =35°C	I <sub>f(av)</sub>	1.0		A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	35		A
Maximum Forward Voltage at rated Forward current	V <sub>f</sub>	1.5	2.5	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I <sub>r</sub>	5.0 200.0		µA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	25		nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	25.0		pF
Typical Thermal Resistance (Note 3)	R <sub>th(ja)</sub>	50.0		°C/W
Storage and Operating Junction Temperature	T <sub>stg,Tj</sub>	-55 to +150		°C

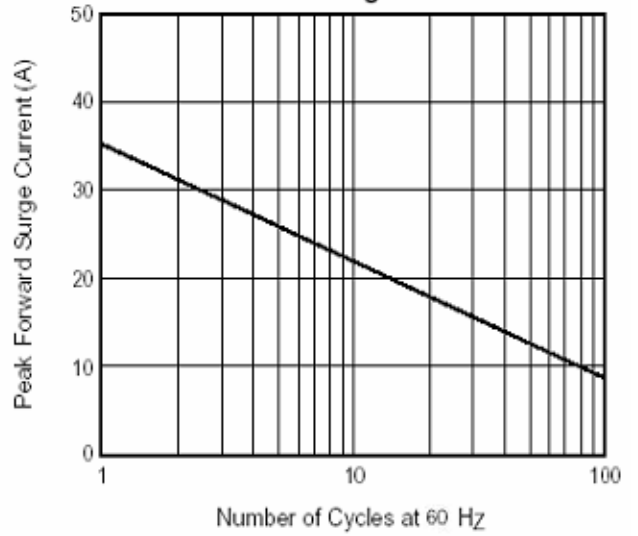
Note:

- Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

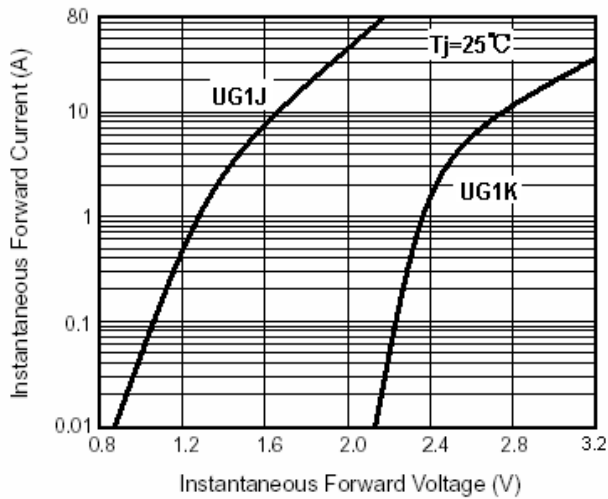
**Fig. 1 – Forward Current Derating Curve**



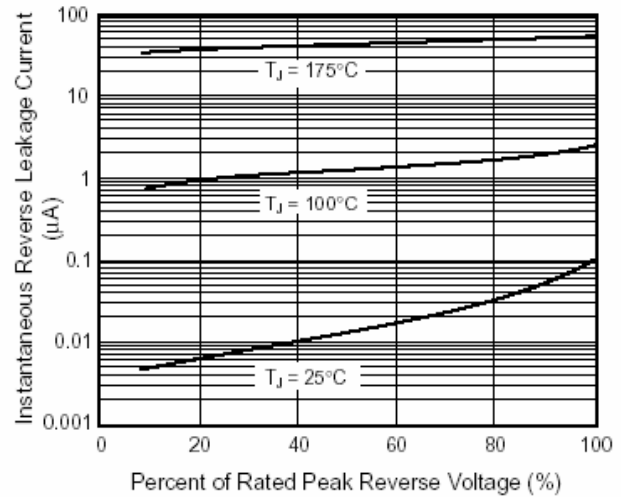
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



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



**Fig. 4 – Typical Reverse Leakage Characteristics**



**Fig. 5 – Typical Junction Capacitance**

