

# UGS1J THRU UGS1K

## SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE: 600V to 800V

CURRENT: 1.0A



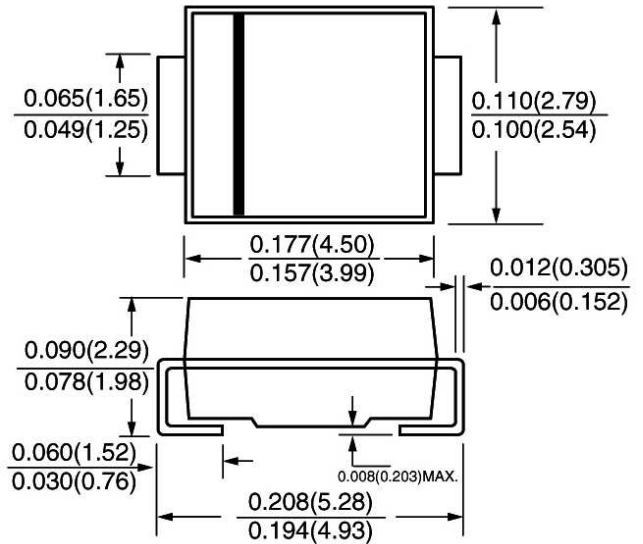
### FEATURE

Ideal for surface mount pick and place application  
 Low profile package  
 Built-in strain relief  
 High surge capability  
 High temperature soldering guaranteed  
 260°C/10sec/at terminals  
 Glass passivated chip  
 Superfast recovery time for high efficiency

### MECHANICAL DATA

Terminal: Plated axial leads solderable per  
 MIL-STD 202E, method 208C  
 Case: Molded with UL-94 Class V-0 recognized Flame  
 Retardant Epoxy  
 Polarity: color band denotes cathode  
 Mounting position: any

### SMA / DO-214AC



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	UGS1J	UGS1K	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 T <sub>L</sub> =125°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 at rated DC blocking voltage Ta =25°C 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(jl)</sub>	13		°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 terminal mounted on 5×5mm copper pad area

RATINGS AND CHARACTERISTIC CURVES UGS1J THRU UGS1K

Fig. 1 – Forward Current Derating Curve

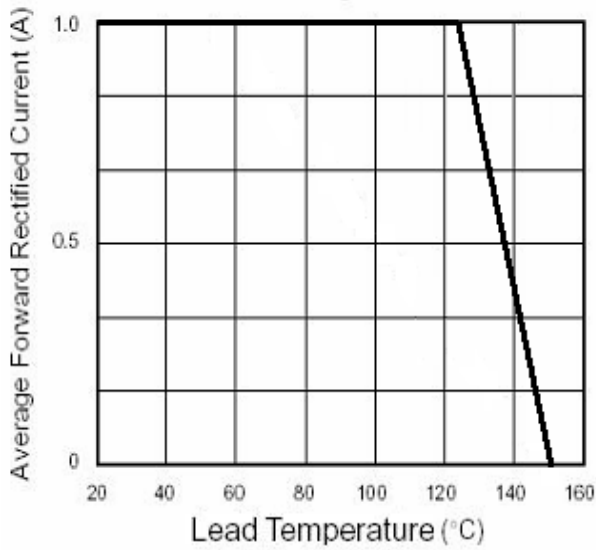


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

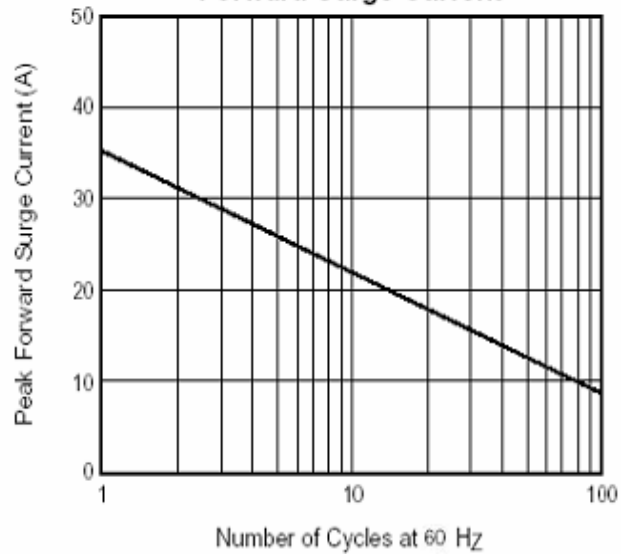


Fig. 3 – Typical Instantaneous Forward Characteristics

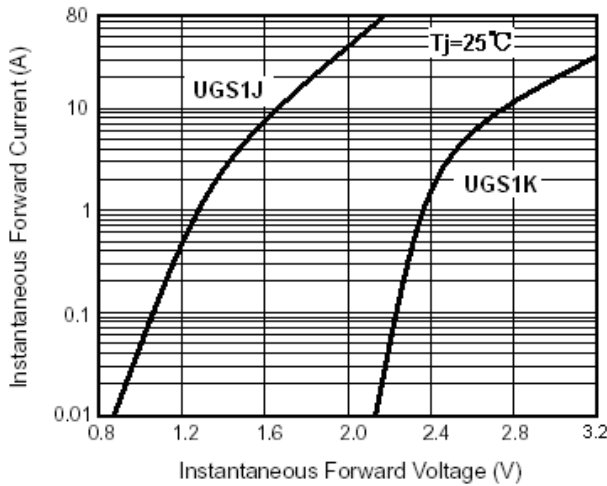


Fig. 4 – Typical Reverse Leakage Characteristics

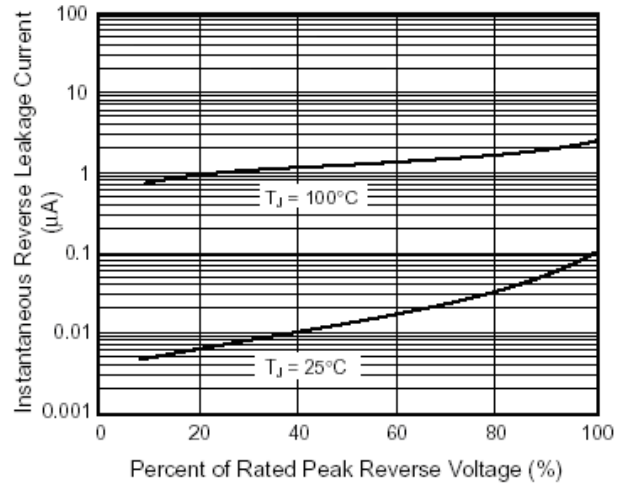


Fig. 5 – Typical Junction Capacitance

