

# GSL1A-E-R THRU GSL1Q-E-R

## SURFACE MOUNT GLASS PASSIVATED RECTIFIER

VOLTAGE: 50 to 1200V

CURRENT: 1.0A

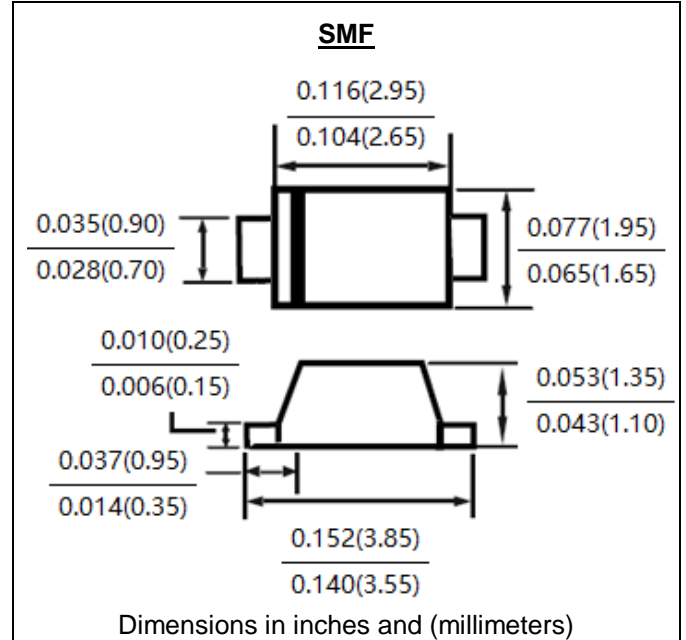


### FEATURE

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  
 Halogen Free

### MECHANICAL DATA

Terminal: Solderable per J-STD-002  
 Case: Molded with UL-94 class V-0 recognized Halogen Free Epoxy  
 Polarity: color band denotes cathode  
 Marking: S1A~S1Q



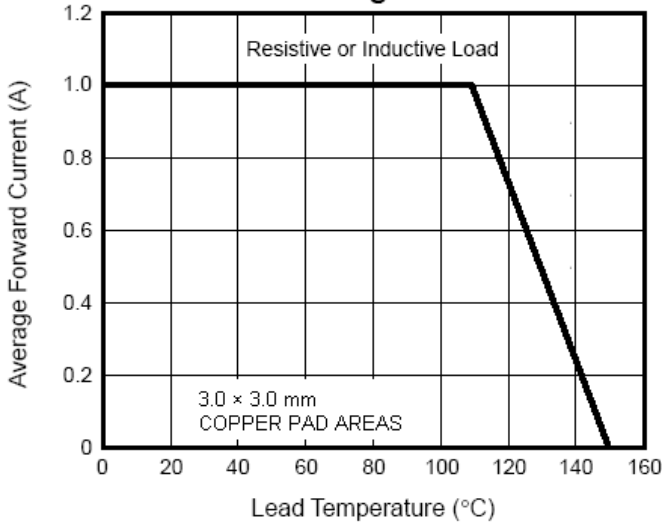
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

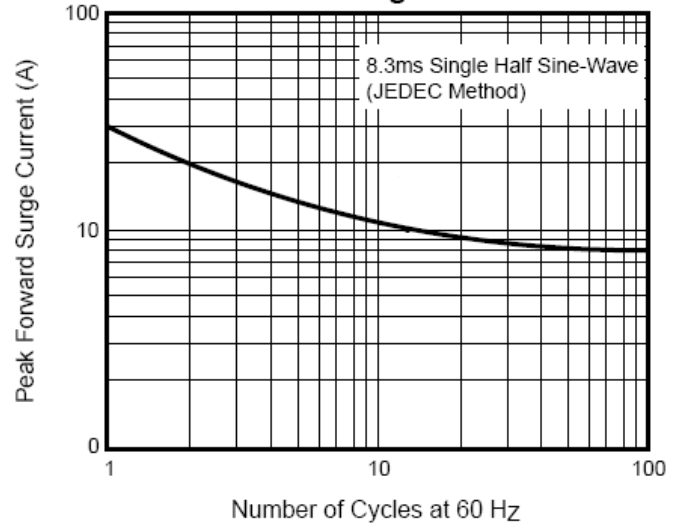
	Symbol	GSL 1A- E-R	GSL 1B- E-R	GSL 1D- E-R	GSL 1G- E-R	GSL 1J- E-R	GSL 1K- E-R	GSL 1M- E-R	GSL 1Q- E-R	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	50	100	200	400	600	800	1000	1200	V
Maximum RMS Voltage	V <sub>rms</sub>	35	70	140	280	420	560	700	840	V
Maximum DC blocking Voltage	V <sub>dc</sub>	50	100	200	400	600	800	1000	1200	V
Maximum Average Forward Rectified Current 3/8"lead length at T <sub>L</sub> =110°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>	30								A
Maximum Instantaneous Forward Voltage at rated Forward current	V <sub>f</sub>	1.1								V
Maximum DC Reverse Current at rated DC blocking voltage T <sub>a</sub> =25°C T <sub>a</sub> =125°C	I <sub>r</sub>	5.0 300.0								μA
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	9.0								pF
Typical Thermal Resistance (Note 2)	R <sub>th(jl)</sub> R <sub>th(ja)</sub> R <sub>th(jc)</sub>	21 62 22								°C/W
Storage and Operating Junction Temperature	T <sub>j</sub> , T <sub>stg</sub>	-50 to +150								°C

- Note:
1. Measured at 1.0 MHz and applied voltage of 4.0Vdc
  2. Thermal Resistance from junction to ambient and from junction to lead mounted on P.C.B. with 3x3mm copper pad area

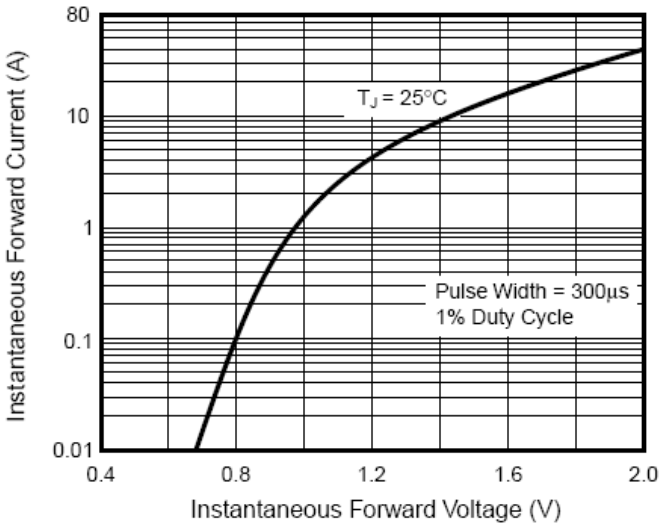
**Fig. 1 – Forward Current Derating Curve**



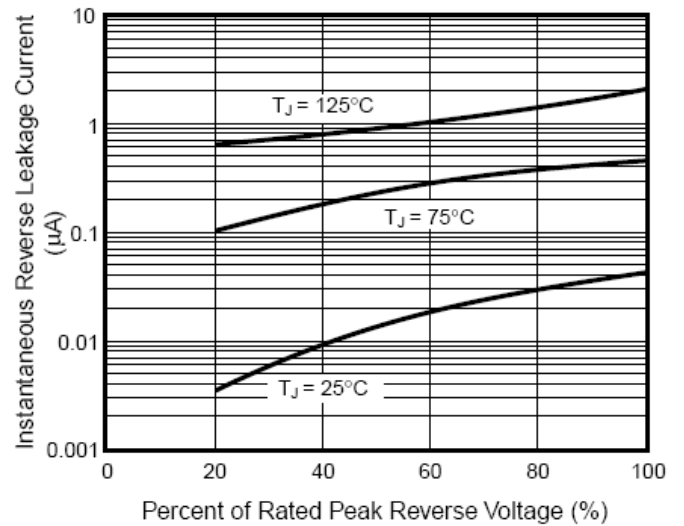
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



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



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



**Fig. 5 – Typical Junction Capacitance**

