

# GU1J-E-47LM

## ULTRAFAST EFFICIENT GLASS PASSIVATED RECTIFIER

VOLTAGE: 600V

CURRENT: 1.0A

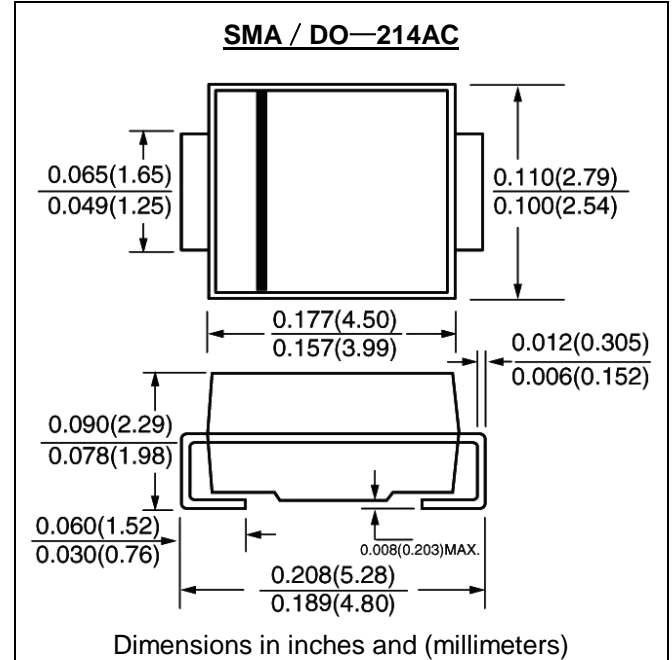


### FEATURE

Ultrafast Nanosecond Recovery Times  
150°C Operating Junction Temperature  
Low Forward Voltage  
Low Leakage Current  
High Temperature Glass Passivated Junction  
Halogen Free

### Mechanical Characteristics

Case: JEDEC SMA/DO-214AC molded plastic body  
Terminals: Solder plated, solderable per J-STD-002  
Polarity: Color band denotes cathode end



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

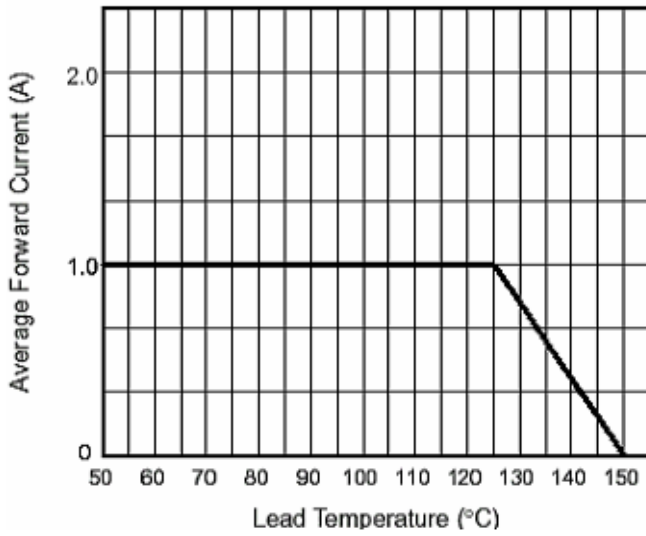
(single-phase, half wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	Symbol	GU1J-E-47LM	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	600	V
Maximum RMS Voltage	V <sub>rms</sub>	420	V
Maximum DC blocking Voltage	V <sub>dc</sub>	600	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>	1.25	V
Maximum DC Reverse Current at rated DC blocking voltage	I <sub>r</sub>	10 150	μA
Maximum Reverse Recovery Time	T <sub>rr</sub>	50	nS
Typical Junction Capacitance	C <sub>j</sub>	25	pF
Typical Thermal Resistance	R <sub>th(jl)</sub>	16	°C/W
Storage and Operating Temperature Range	T <sub>stg</sub> , T <sub>j</sub>	-55 to +150	°C

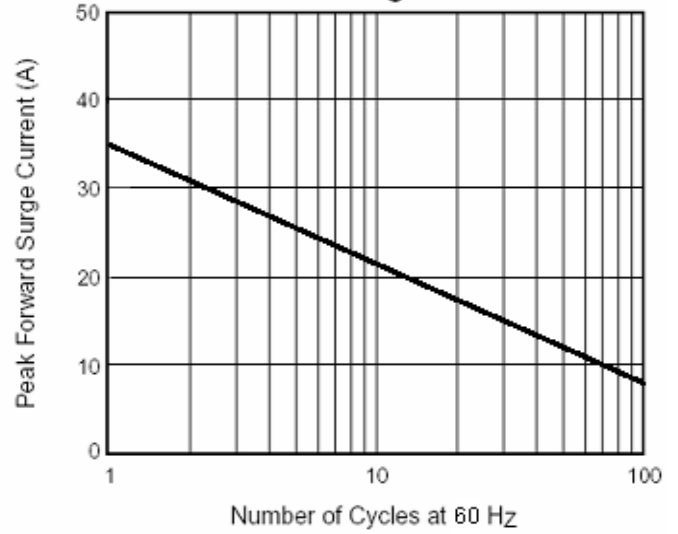
Note:

1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V<sub>dc</sub>
3. Thermal Resistance from Junction to terminal mounted on 5×5mm copper pad area

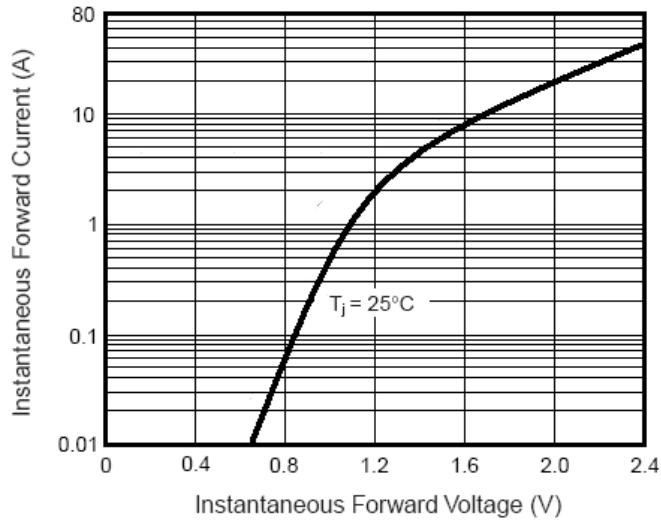
**Fig. 1 — Forward Current Derating Curve**



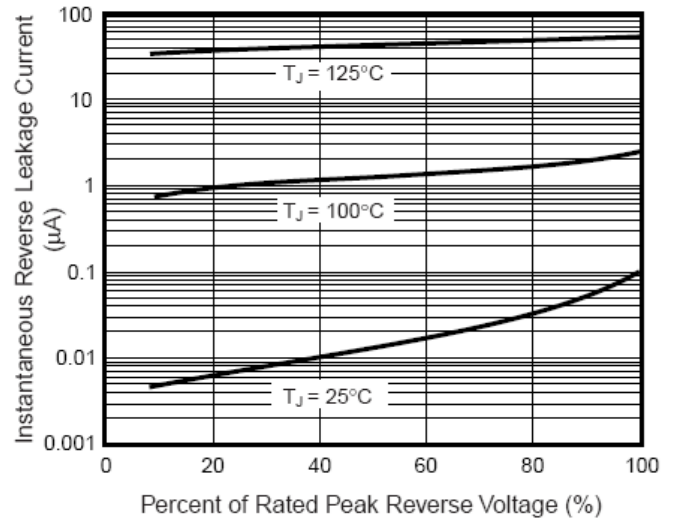
**Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current**



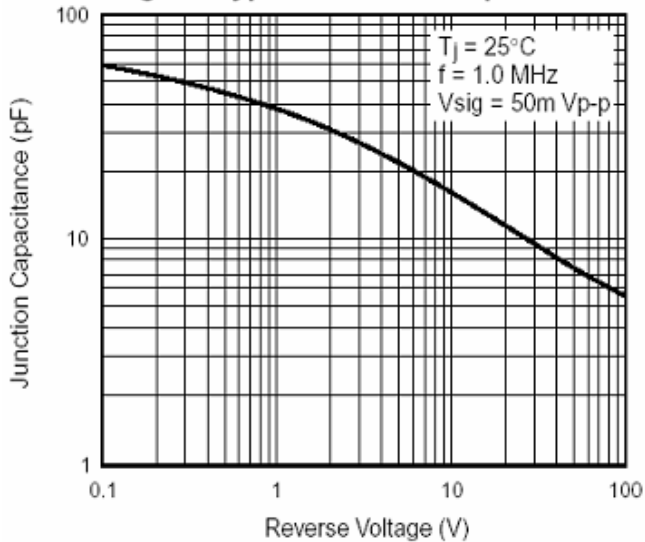
**Fig. 3 — Typical Instantaneous Forward Characteristics**



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



**Fig. 5 — Typical Junction Capacitance**



Maximum Non-Repetitive Peak Forward Surge Current  
(0.5ms ~ 10ms)

