

GUL1A-E-R THRU GUL1M-E-R



SURFACE MOUNT

ULTRFAST SWITCHING RECTIFIER

VOLTAGE: 50 to 1000V

CURRENT: 1.0A

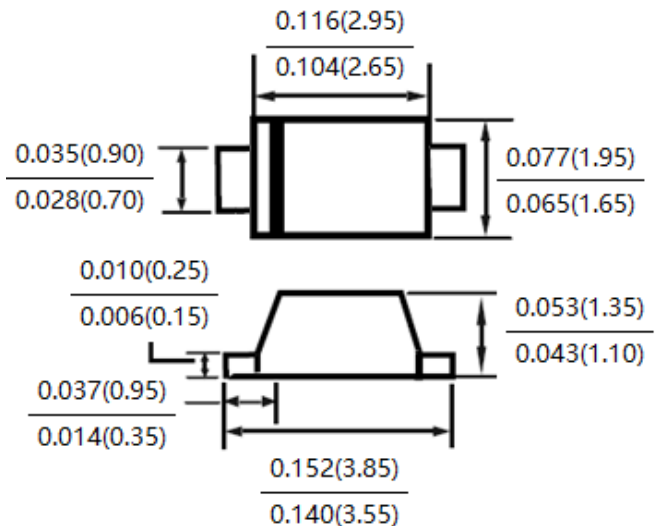
FEATURE

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
 Fast recovery time for high efficiency
 Halogen Free

MECHANICAL DATA

Terminal: Plated leads solderable per J-STD-002
 Case: Molded with UL-94 class V-0 recognized Halogen Free Epoxy
 Polarity color band denotes cathode
 Marking: U1A~U1M

SMF



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)

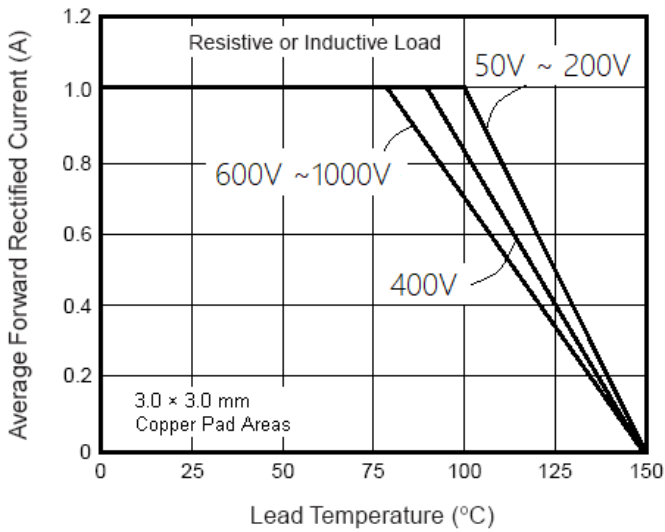
	Symbol	GUL 1A-E-R	GUL 1B-E-R	GUL 1D-E-R	GUL 1G-E-R	GUL 1J-E-R	GUL 1K-E-R	GUL 1M-E-R	units	
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V _{rms}	35	70	140	280	420	560	700	V	
Maximum DC blocking Voltage	V _{dc}	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current 3/8"lead length at T _L =110°C	I _{f(av)}	1.0							A	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	30							A	
Maximum Forward Voltage at rated forward current	V _f	1.0		1.4		1.7			V	
Maximum DC Reverse Current at rated DC blocking voltage Ta =25°C Ta =125°C	I _r	5.0				300				µA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50				75				nS
Typical Junction Capacitance (Note 2)	C _j	9.0							pF	
Typical Thermal Resistance (Note 3)	R _{th(jl)} R _{th(ja)} R _{th(jc)}	21				62				°C/W
		22								
Storage and Operating Junction Temperature	T _{stg} , T _j	-50 to +150							°C	

Note:

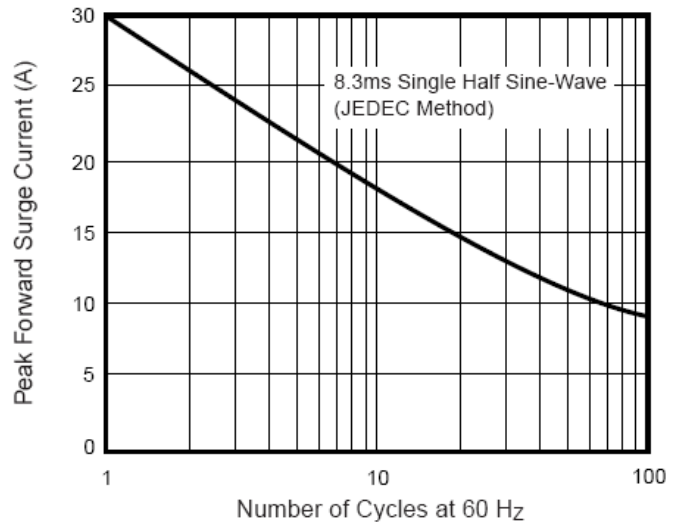
- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- Thermal Resistance from Junction to terminal mounted on 3x3mm copper pad area

RATINGS AND CHARACTERISTIC CURVES GUL1A-E-R THRU GUL1M-E-R

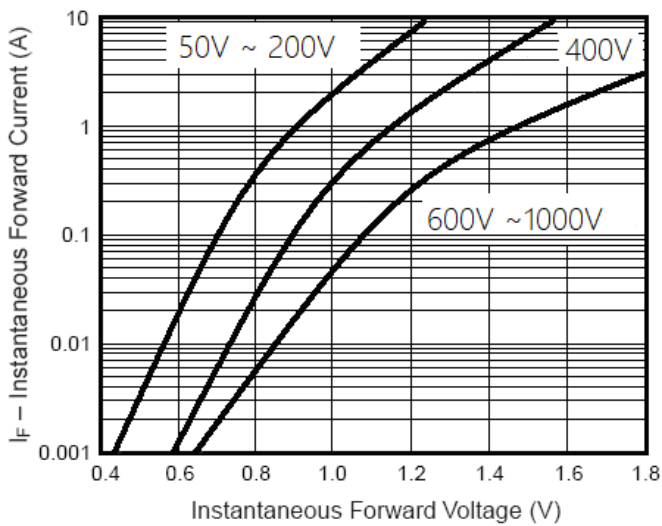
Forward Current Derating Curve



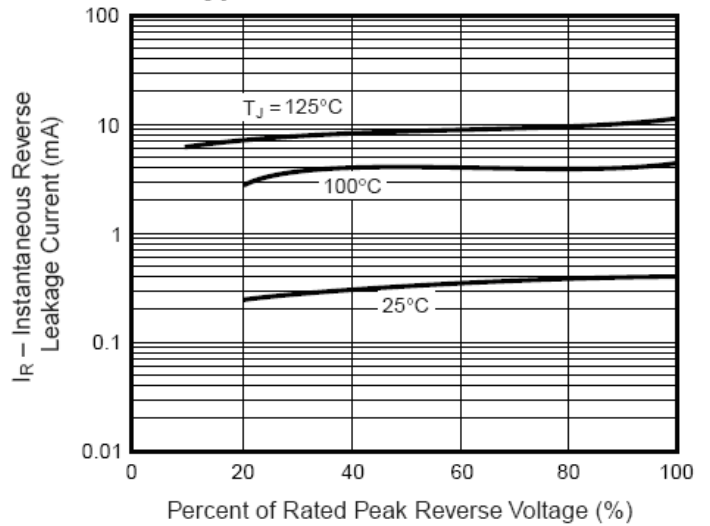
Maximum Non-Repetitive Peak Forward Surge Current



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance

