GUL1A-R THRU GUL1K-R

SURFACE MOUNT
ULTRFAST SWITCHING RECTIFIER

VOLTAGE：50 to 800V **CURRENT：1.0A**

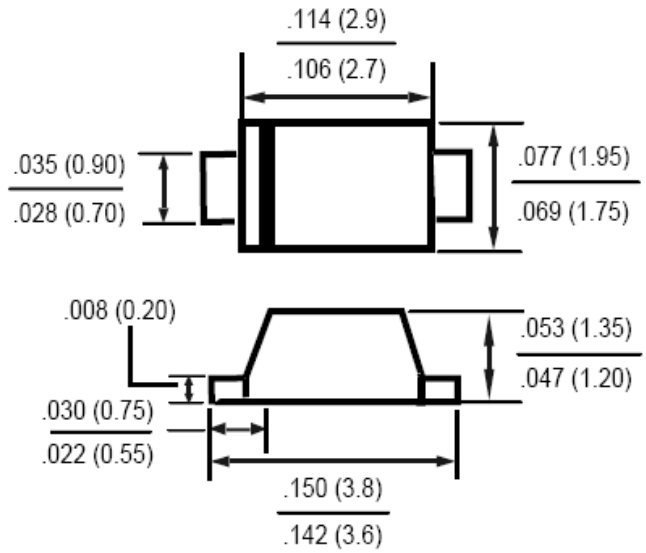
FEATURE

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

MECHANICAL DATA

Terminal：Plated 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
Marking：U1AR～U1KR

SMF



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

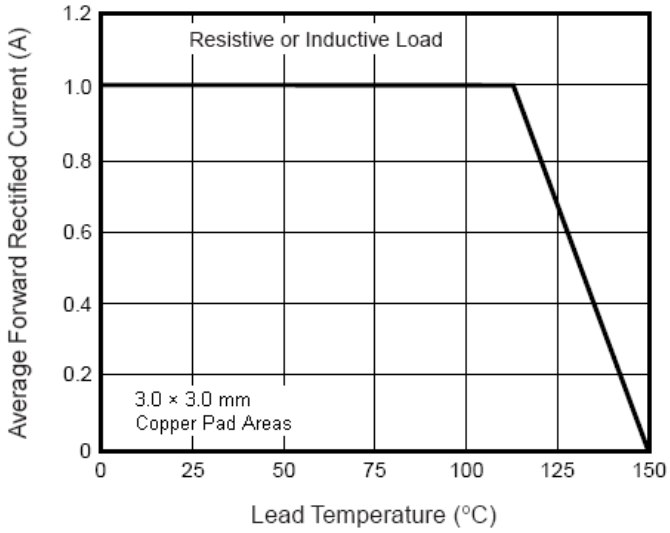
(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25℃, unless otherwise stated)

	Symbol	GUL1 A-R	GUL1 B-R	GUL1 D-R	GUL1 G-R	GUL1J -R	GUL1 K-R	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	V
Maximum DC blocking Voltage	Vdc	50	100	200	400	600	800	V
Maximum Average Forward Rectified Current 3/8″lead length at T_L =110℃	If(av)	1.0						A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	30						A
Maximum Forward Voltage at rated forward current	Vf	1.0			1.4	1.7		V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =125℃	Ir	5.0 300.0						μA
Maximum Reverse Recovery Time (Note1)	Trr	50				75		nS
Typical Junction Capacitance (Note 2)	Cj	9.0						pF
Typical Thermal Resistance (Note 3)	Rth(jl) Rth(ja)	27 75					30 85	℃/W
Storage and Operating Junction Temperature	Tstg, Tj	-50 to +150						℃

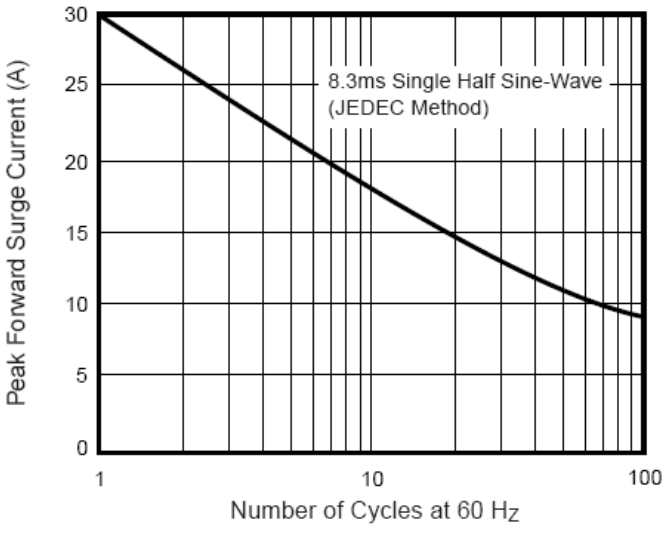
Note：
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to terminal mounted on 3×3mm copper pad area

RATINGS AND CHARACTERISTIC CURVES GUL1A-R THRU GUL1K-R

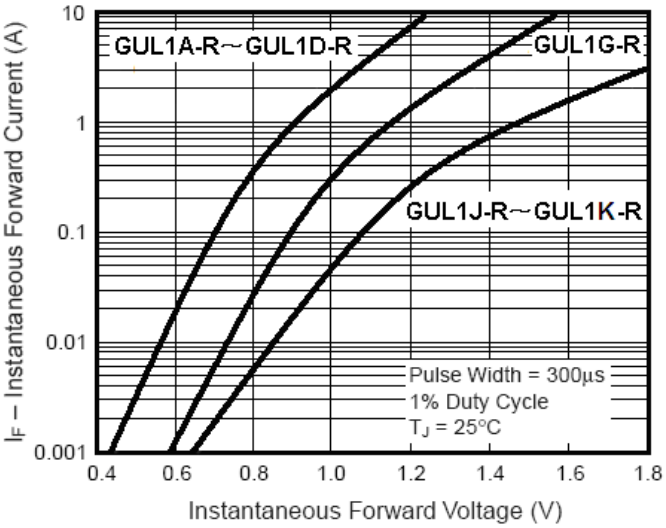
Forward Current Derating Curve



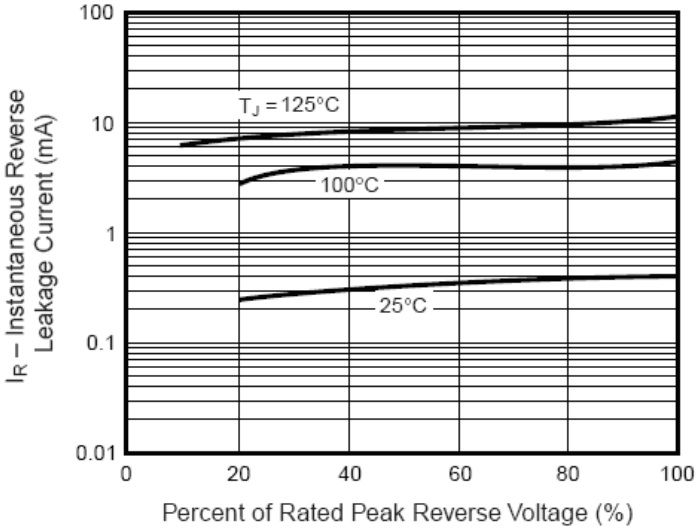
Maximum Non-Repetitive Peak Forward Surge Current



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance