GRL1J-E-R THRU GRL1M-E-R

SURFACE MOUNT FAST SWITCHING RECTIFIER

VOLTAGE：600 to 1000V **CURRENT：1.0A**

VOLTARISTECH INC.
POWER • PRECISION • INNOVATION

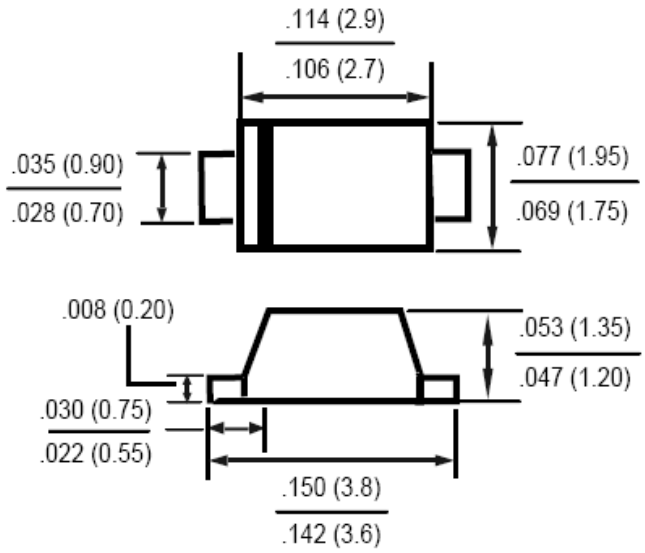
FEATURE

Ideal for surface mount pick and place applications
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
Halogen Free

MECHANICAL DATA

Terminal：Plated leads solderable per MIL-STD 750, method 2026
Case：Molded with UL-94 class V-0 recognized Halogen Free Epoxy
Polarity：color band denotes cathode
Marking：R1J-ER～R1M-ER

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	GRL1J-E-R	GRL1K-E-R	GRL1M-E-R	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	600	800	1000	V
Maximum RMS Voltage	Vrms	420	560	700	V
Maximum DC blocking Voltage	Vdc	600	800	1000	V
Maximum Average Forward Rectified Current 3/8″lead length at TL=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	1.3			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	250	500		nS
Typical Junction Capacitance (Note 2)	Cj	9.0			pF
Typical Thermal Resistance (Note 3)	Rth(jl)	30			℃/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 GRL1J-E-R THRU GRL1M-E-R

FIG. 1 - FORWARD CURRENT DERATING CURVE

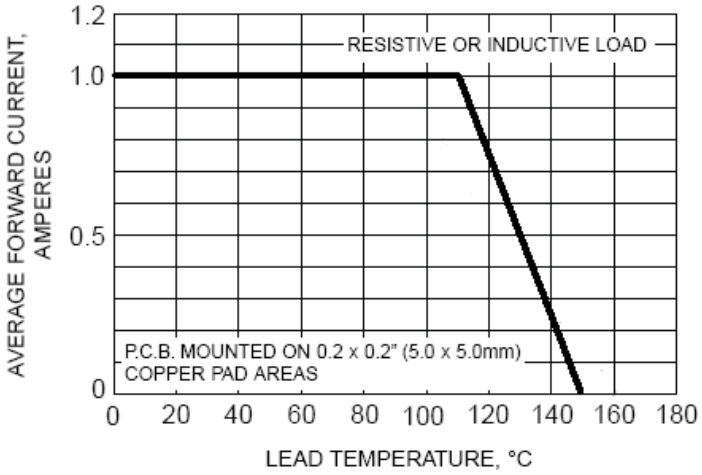


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

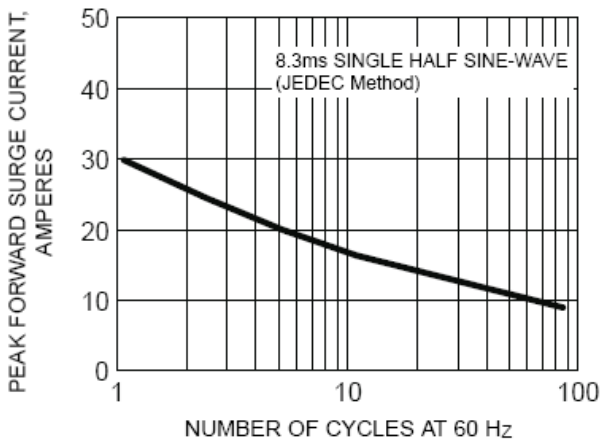


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

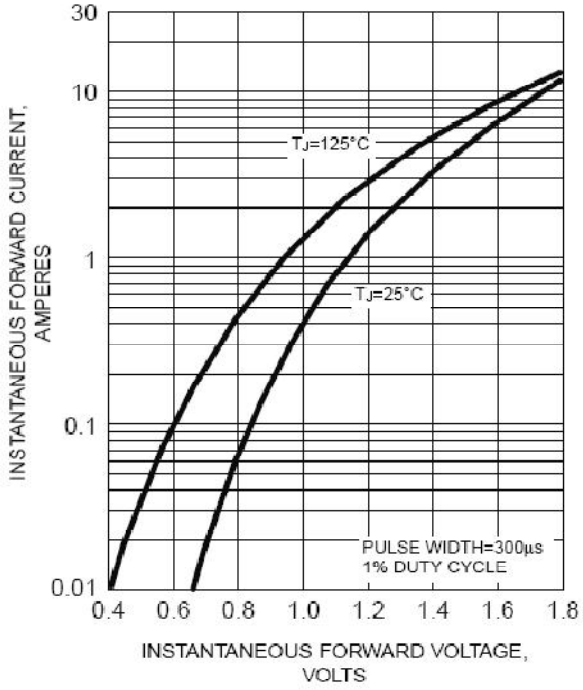


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

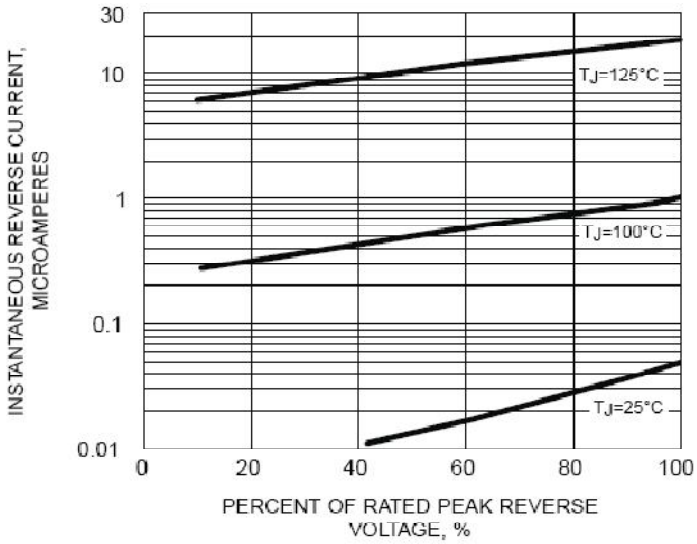


FIG. 5 - TYPICAL JUNCTION CAPACITANCE