

GRL1A-E-R THRU GRL1M-E-R

SURFACE MOUNT FAST SWITCHING RECTIFIER

VOLTAGE: 50 to 1000V

CURRENT: 1.0A

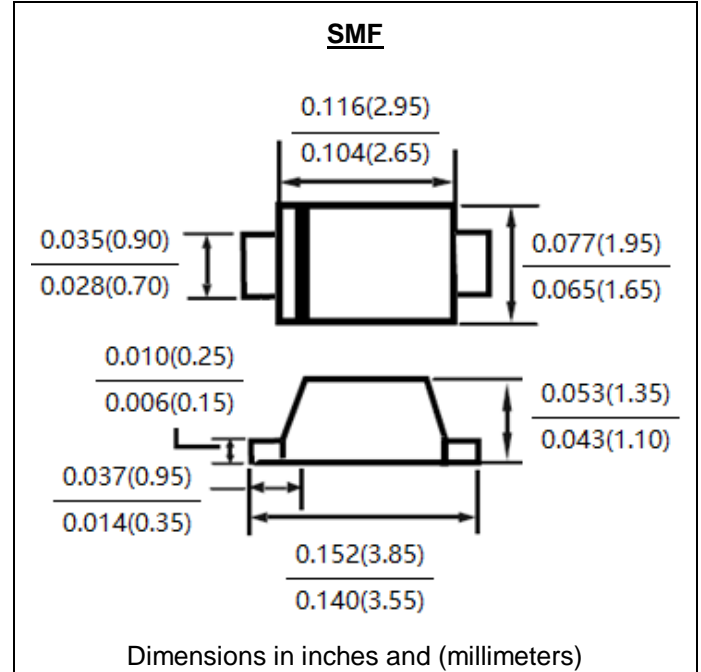


FEATURE

Ideal for surface mount pick and place applications
 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: R1A~R1M



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbol	GRL1 A-E- R	GRL1 B-E- R	GRL1 D-E- R	GRL1 G-E- R	GRL1 J-E- R	GRL1 K-E- R	GRL1 M-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 TL=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	1.3							V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I _r	5.0 300							µA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150				250	500		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 22							°C/W
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 GRL1A-E-R THRU GRL1M-E-R

FIG. 1 - FORWARD CURRENT DERATING CURVE

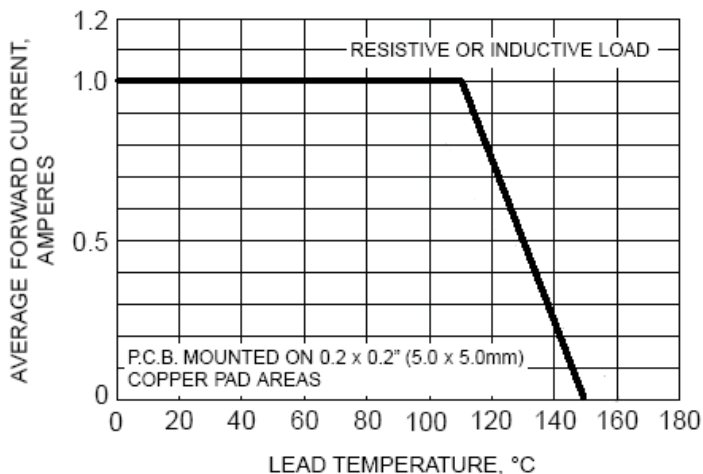


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

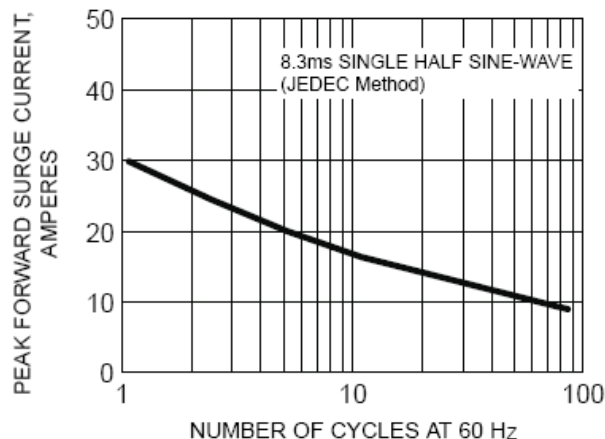


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

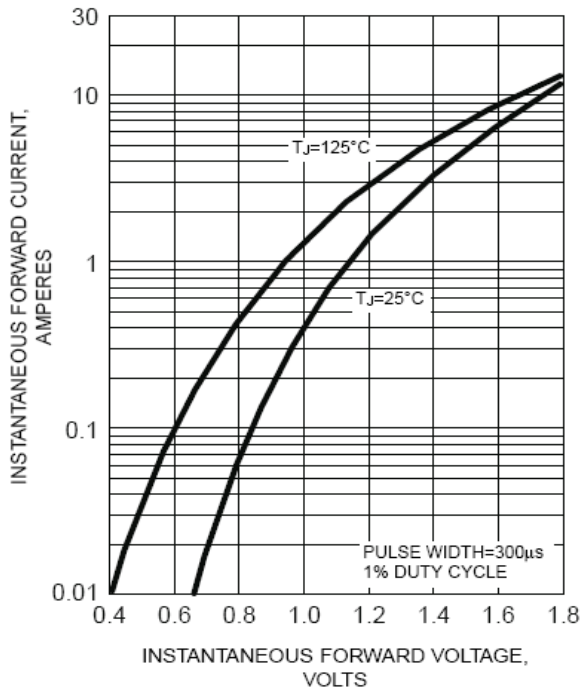


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

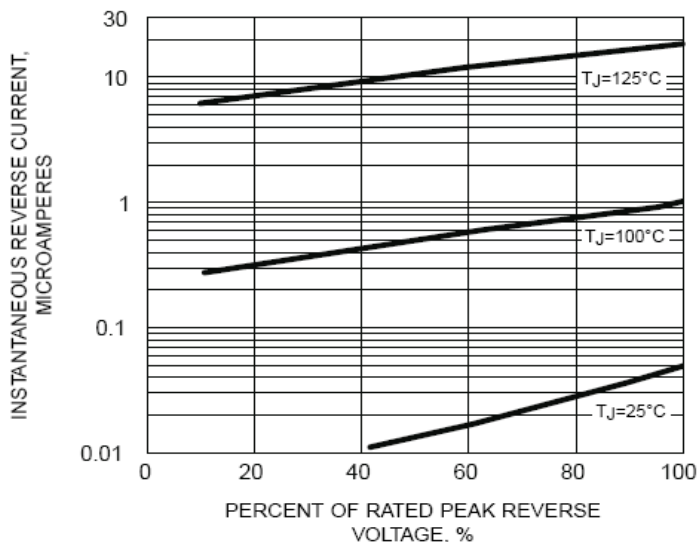


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

