GE1J-47L

SURFACE MOUNT FAST ULTRAFAST RECTIFIER

VOLTAGE: 600V **CURRENT: 1.0A**

VOLTARISTECH INC.
POWER · PRECISION · INNOVATION

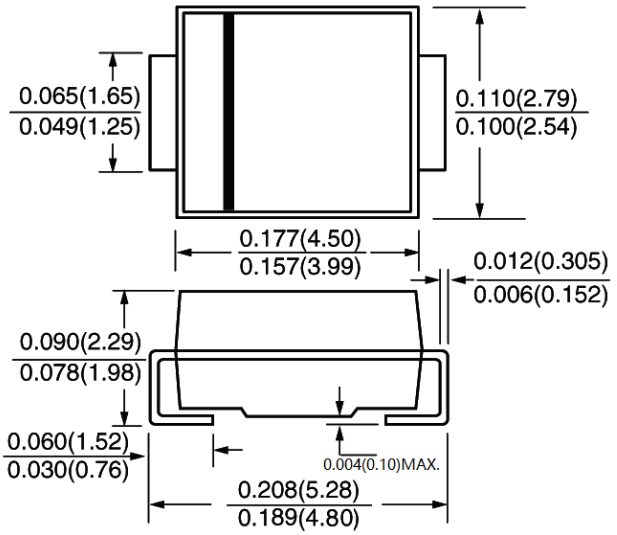
FEATURE

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
Ultrafast recovery time for high efficiency

MECHANICAL DATA

Termina: Plated axial leads solderable per J-STD-002
Case: Molded with UL-94 class V-0 recognized Flame Retardant Epoxy
Polarity: color band denotes cathode

SMA / DO-214AC



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)

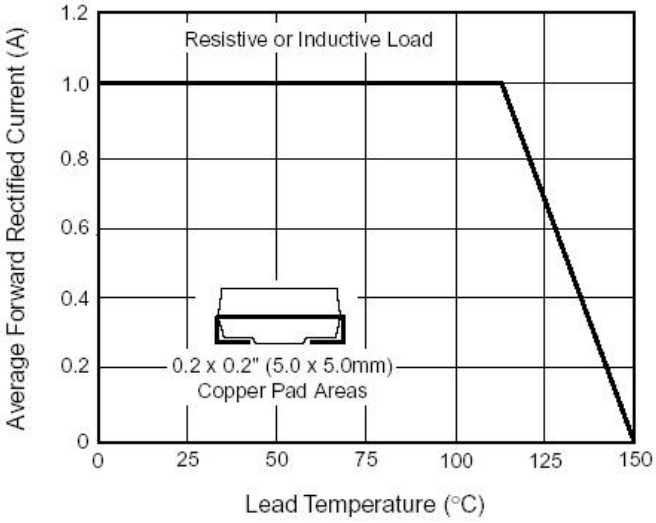
	Symbol	GE1J-47L	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	600	V
Maximum RMS Voltage	Vrms	420	V
Maximum DC blocking Voltage	Vdc	600	V
Maximum Average Forward Rectified Current 3/8″lead length at T_L =110℃	If(av)	1.0	A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	Ifsm	30	A
Peak Forward Surge Current 1ms single half sine-wave superimposed on rated load	Ifsm	82	A
Peak Forward Surge Current 1ms single square wave superimposed on rated load	Ifsm	60	A
Maximum Forward Voltage at rated forward current	Vf	1.7	V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =100℃	Ir	10 100	μA
Maximum Reverse Recovery Time (Note1)	Trr	50	nS
Typical Junction Capacitance (Note 2)	Cj	10	pF
Typical Thermal Resistance (Note 3)	Rth(jl) Rth(jc)	30 25	℃/W
Storage and Operating Junction Temperature	Tstg, Tj	-50 to +150	℃

Note:

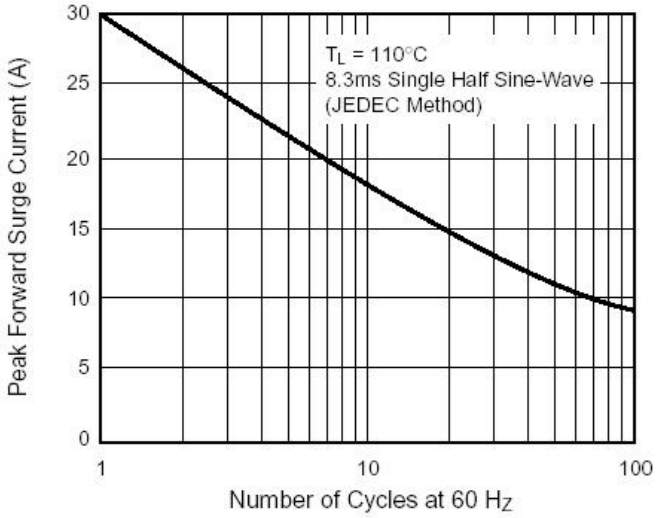
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Lead and Junction to Case mounted on 5×5mm copper pad area

RATINGS AND CHARACTERISTIC CURVES GE1J-47L

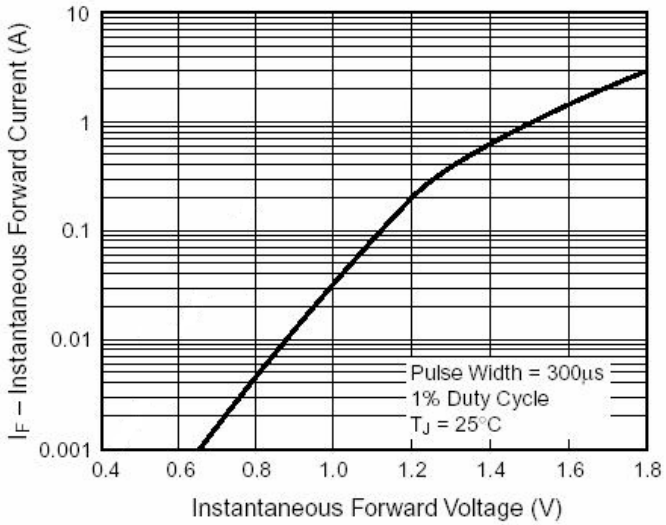
Forward Current Derating Curve



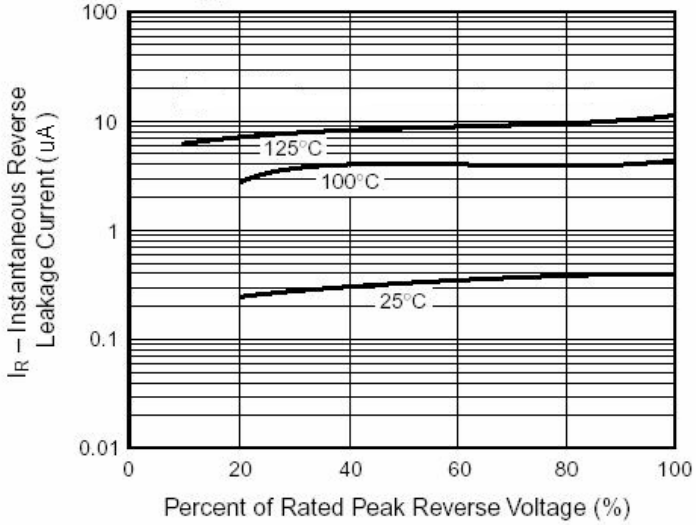
Maximum Non-Repetitive Peak Forward Surge Current



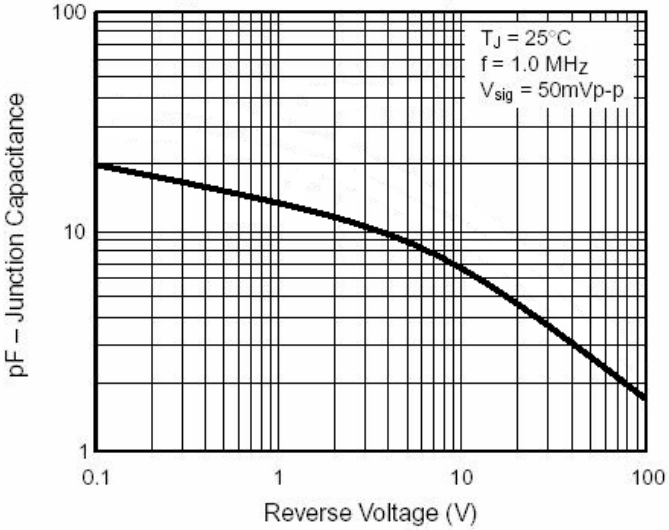
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



Typical Transient Thermal Impedance