ESL1A-E-R THRU ESL1J-E-R

SURFACE MOUNT
ULTRAFAST GLASS PASSIVATED
JUNCTION RECTIFIER

VOLTAGE: 50 to 600V **CURRENT: 1.0A**

VOLTARISTECH INC.
POWER · PRECISION · INNOVATION

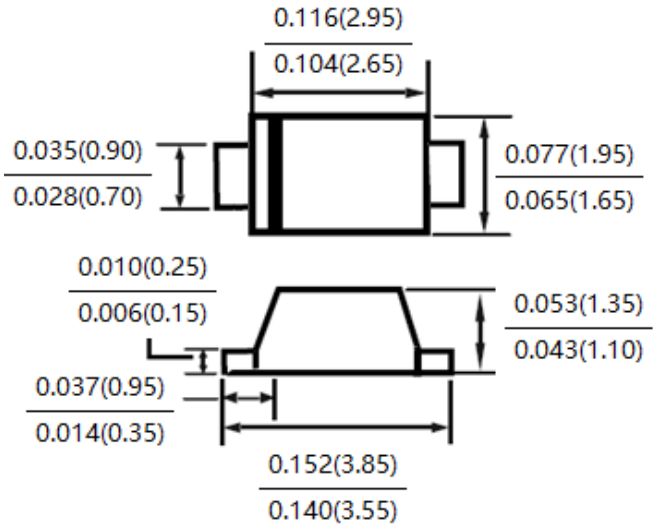
FEATURE

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

MECHANICAL DATA

Terminal: Solder plated, solderable per J-STD-002
Case: Molded with UL-94 class V-0 recognized Halogen Free Epoxy
Polarity: color band denotes cathode
Marking: E1A～E1J

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)

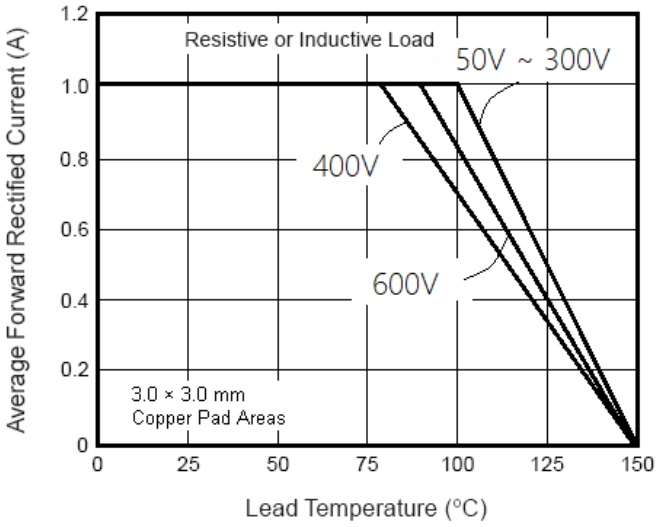
	Symbol	ESL1 A-E-R	ESL1 B-E-R	ESL1 C-E-R	ESL1 D-E-R	ESL1 F-E-R	ESL1 G-E-R	ESL1 J-E-R	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	150	200	300	400	600	V
Maximum RMS Voltage	Vrms	35	70	105	140	210	280	420	V
Maximum DC blocking Voltage	Vdc	50	100	150	200	300	400	600	V
Maximum Average Forward 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
Maximum Forward Voltage at rated forward current	Vf	0.95				1.0	1.25	1.7	V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =125℃	Ir	5.0 300							μ A
Maximum Reverse Recovery Time (Note1)	Trr	25						35	nS
Typical Junction Capacitance (Note 2)	Cj	9.0							pF
Typical Thermal Resistance (Note 3)	Rth(jl) Rth(ja) Rth(jc)	21 62 22							℃/W
Storage and Operating Junction Temperature	Tstg, Tj	-50 to +150							℃

Note：

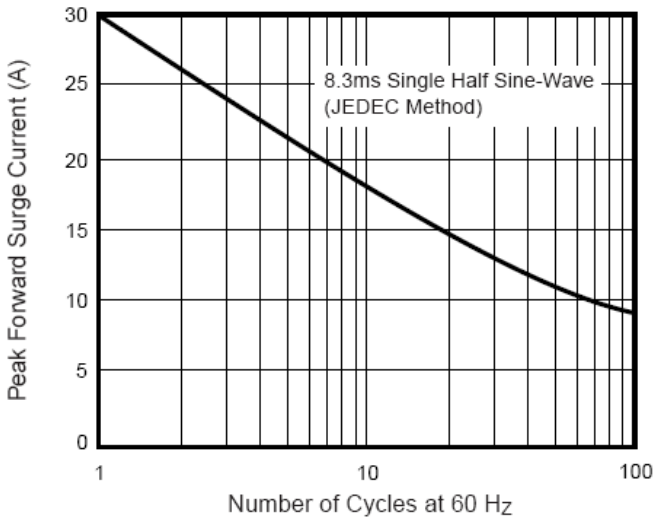
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to terminal mounted on 3×3mm copper pad area

RATINGS AND CHARACTERISTIC CURVES ESL1A-E-R THRU ESL1J-E-R

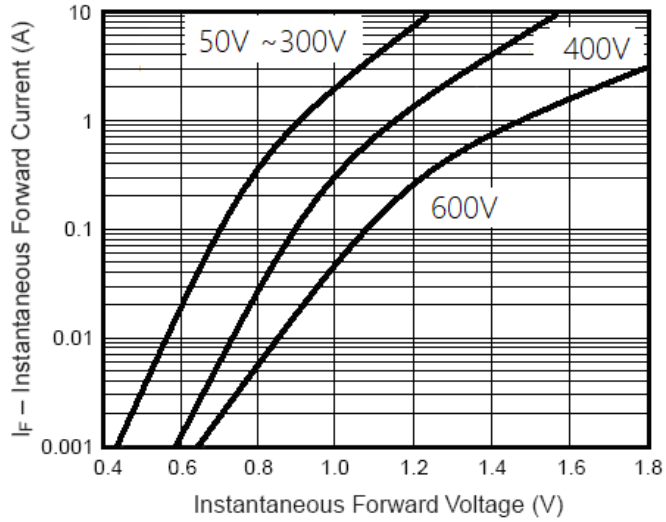
Forward Current Derating Curve



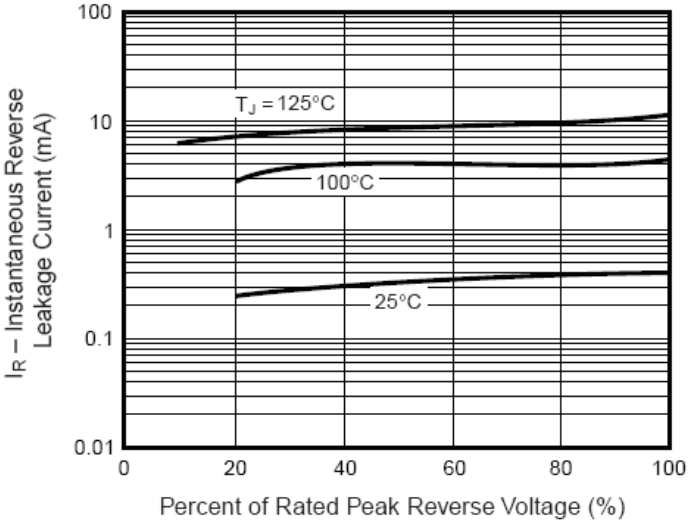
Maximum Non-Repetitive Peak Forward Surge Current



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance