ES1A THRU ES1J

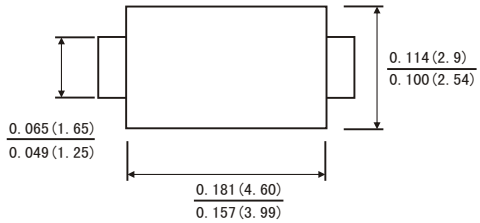
星合电子
XINGHE ELECTRONICS

Surface Mount Superfast Recovery Rectifier
Reverse Voltage – 50 to 600 V
Forward Current – 1 A

FEATURES

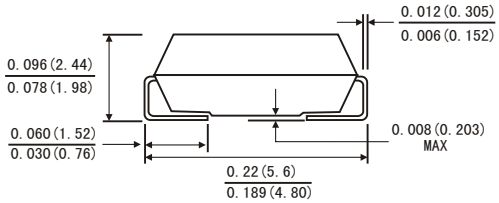
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Juntion
- Superfast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

SMA(DO-214AC)



MECHANICAL DATA

- Case Molded Plastic
- Polarity: Indicated by cathode band
- Weight: 0.002 ounces,0.064 grams
- Mounting position: Any



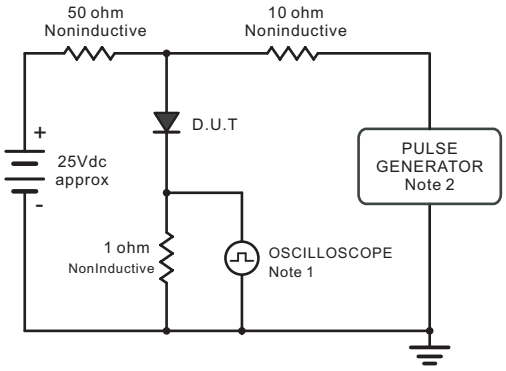
Dimensions in inches and (millimeters)

Absolute Maximum Ratings and Characteristics

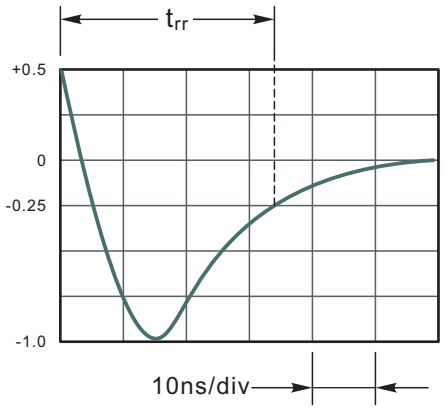
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive bad. For capacitive bad, derate current by 20%.

Parameter	Symbols	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at T_L = 100 °C	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward Voltage at 1 A	V_F	1				1.25		1.7	V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta =125 °C	I_R	5 100							μA
Typical Junction Capacitance at V_R=4V, f=1MHz	C_j	10							pF
Maximum Reverse Recovery Time at I_F=0.5A, I_R=1A, I_{rr}=0.25A	t_{rr}	35							ns
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							°C

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. Ries Time =10ns, max.
Source Impedance = 50 ohms.



Set time Base for 10ns/div

Fig.2 Maximum Average Forward Current Rating

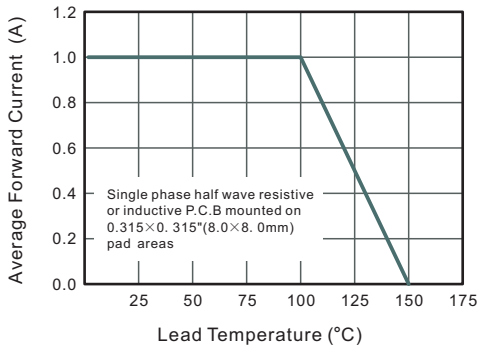


Fig.3 Typical Reverse Characteristics

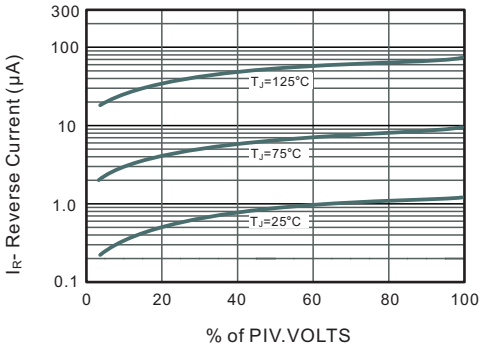


Fig.4 Typical Forward Characteristics

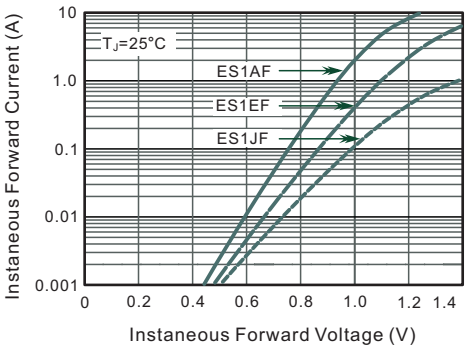


Fig.5 Typical Junction Capacitance