US1A THRU US1M

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- High efficiency
- Lead free in comply with EU RoHS 2011/65/EU directiv

Simplified outline SMA and symbol

Mechanical Data

- Case:SMA
- Terminals: Solderable per MIL-STD-750, Method 20
- Approx. Weight: 0.055g / 0.002oz

Pinning

PIN	DESCRIPTION
1	Cathode
2	Anode

Absolute Maximum Ratings And Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	US1A	US1B	US1D	US1G	US1J	US1K	US1M	Units
Maximum Repetitive 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 at Tc = 125 °C	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.0			1.3	1.65			V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta =125 °C	I_R	5 100							μA
Maximum Reverse Recovery Time(1)	trr	50				75			ns
Typical Thermal Resistance(3)	$R_{\theta JA}$	75							℃/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							℃

（1）Measured with IF = 0.5 A, IR = 1 A, Irr = 0.25 A

（2）P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas

Rating And Characteristic Curves

Fig.1 Forward Current Derating Curve

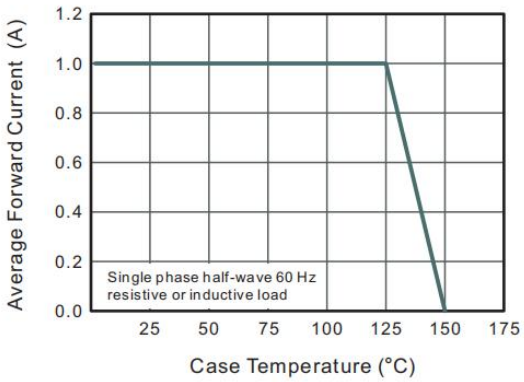


Fig.2 Typical Reverse Characteristics

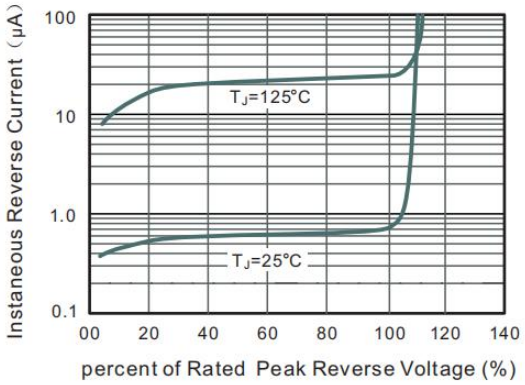


Fig.3 Typical Forward Characteristics

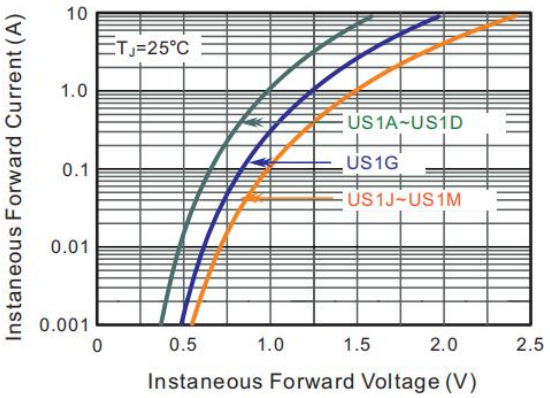
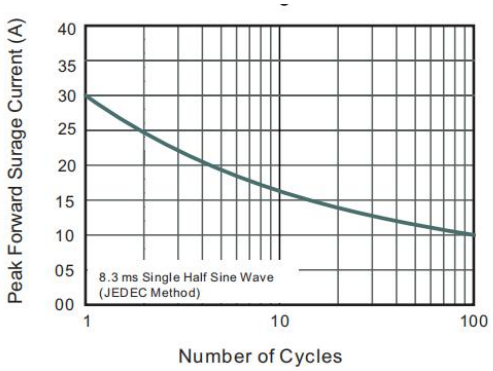


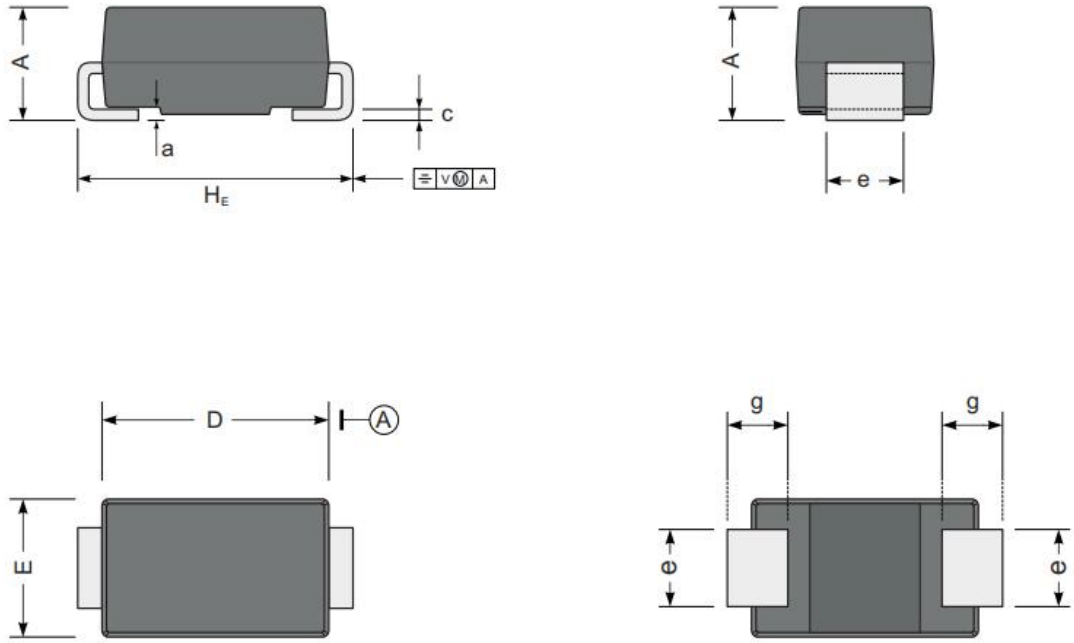
Fig.4 Maximum Non-Repetitive Peak

Forward Surage Current



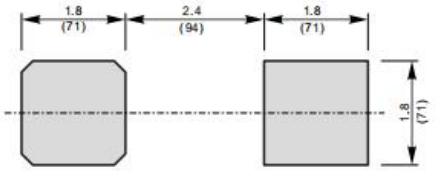
Package Outline

Plastic surface mounted package; 2 leads SMA



UNIT		A	C	D	E	e	g	H_E	a
mm	max	2.2	0.31	4.5	2.7	1.6	1.5	5.2	0.3
	min	1.9	0.15	4.0	2.3	1.3	0.9	4.7	
mil	max	87	12	181	106	63	59	205	12
	min	75	6	157	91	51	35	185	

The recommended mounting pad size



Unit : mm (mil)