

/ Descriptions

Surface Mount Superfast Recovery Rectifier,Reverse Voltage:800V,Forward Current:1.0A, SMA package.

/ Features

Glass Passivated Chip Junction Superfast reverse recovery time Lead free in comply with EU R HS 2011/65/EU directives For surface mounted applications,HF product.

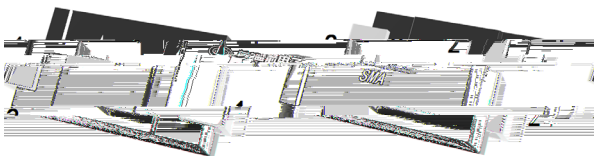
/ Applications

General purpose.

/ Equivalent Circuit

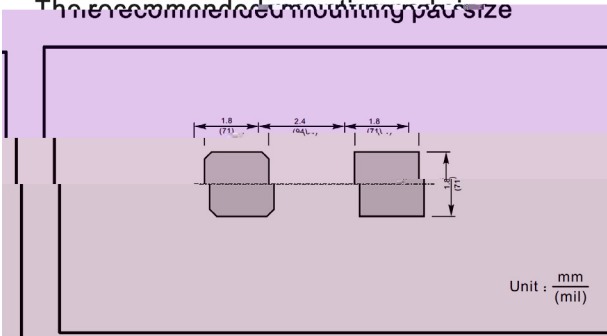


/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25$)

Parameter	Symbol	Rating	Unit
		ES1K	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	800	V
Maximum RMS voltage	V_{RMS}	560	V
Maximum DC Blocking Voltage	V_{DC}	800	V
Maximum Average Forward Rectified Current at $T_c=125$ °C	$I_{F\ AV}$	1.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30	A
Typical Junction Capacitance at $V_R=4V$, $f=1MHz$	C_j	15	pF
Typical Thermal Resistance ¹	R_{JA}	60	/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150	

Note:

1 P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

/ Electrical Characteristics($T_a=25$)

Parameter	Symbol	Test Conditions	Rating	Unit
			ES1M	
Maximum Forward Voltage	V_F	$I_F=1.0A$	1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a=25$	5.0	μA
		$T_a=125$	100	μA
Maximum Reverse Recovery Time	t_{rr}	$I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$	35	ns

/ Electrical Characteristic Curve

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

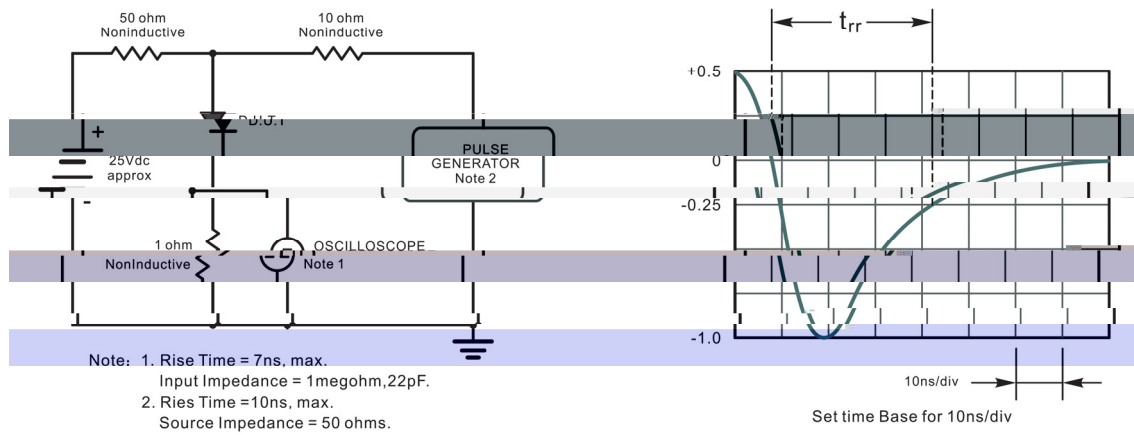


Fig.2 Maximum/Average Forward Current Rating

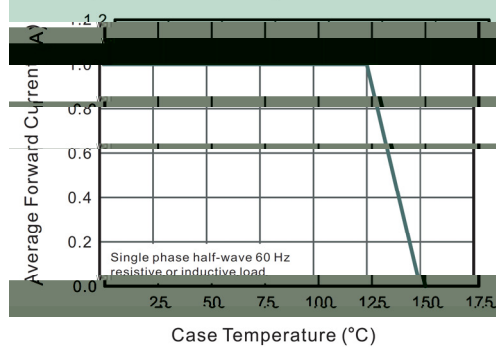


Fig.3 Typical Reverse Characteristics

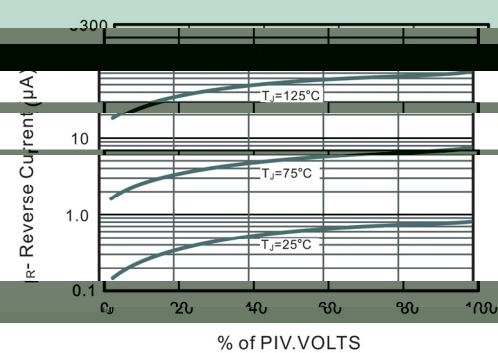


Fig.4 Typical Forward Characteristics

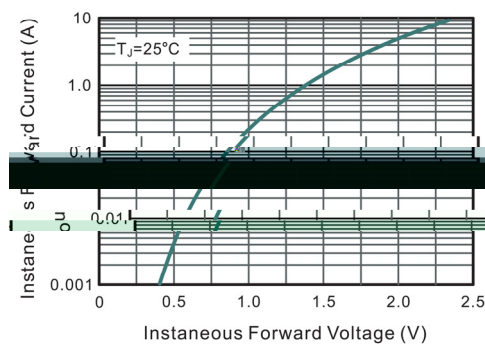


Fig.5 Typical Junction Capacitance

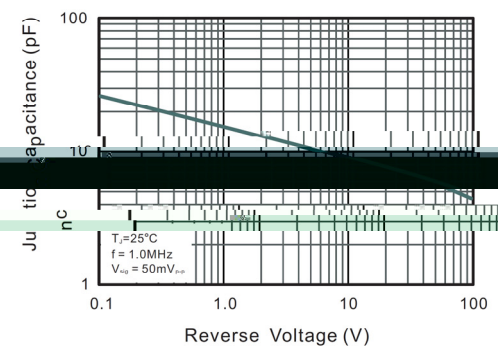
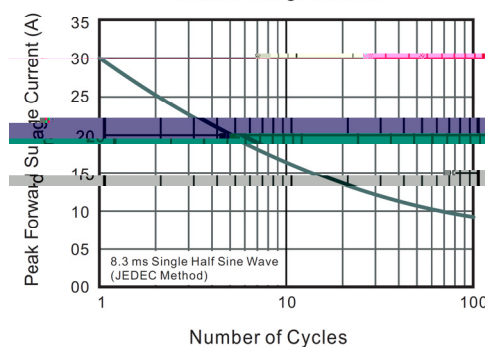
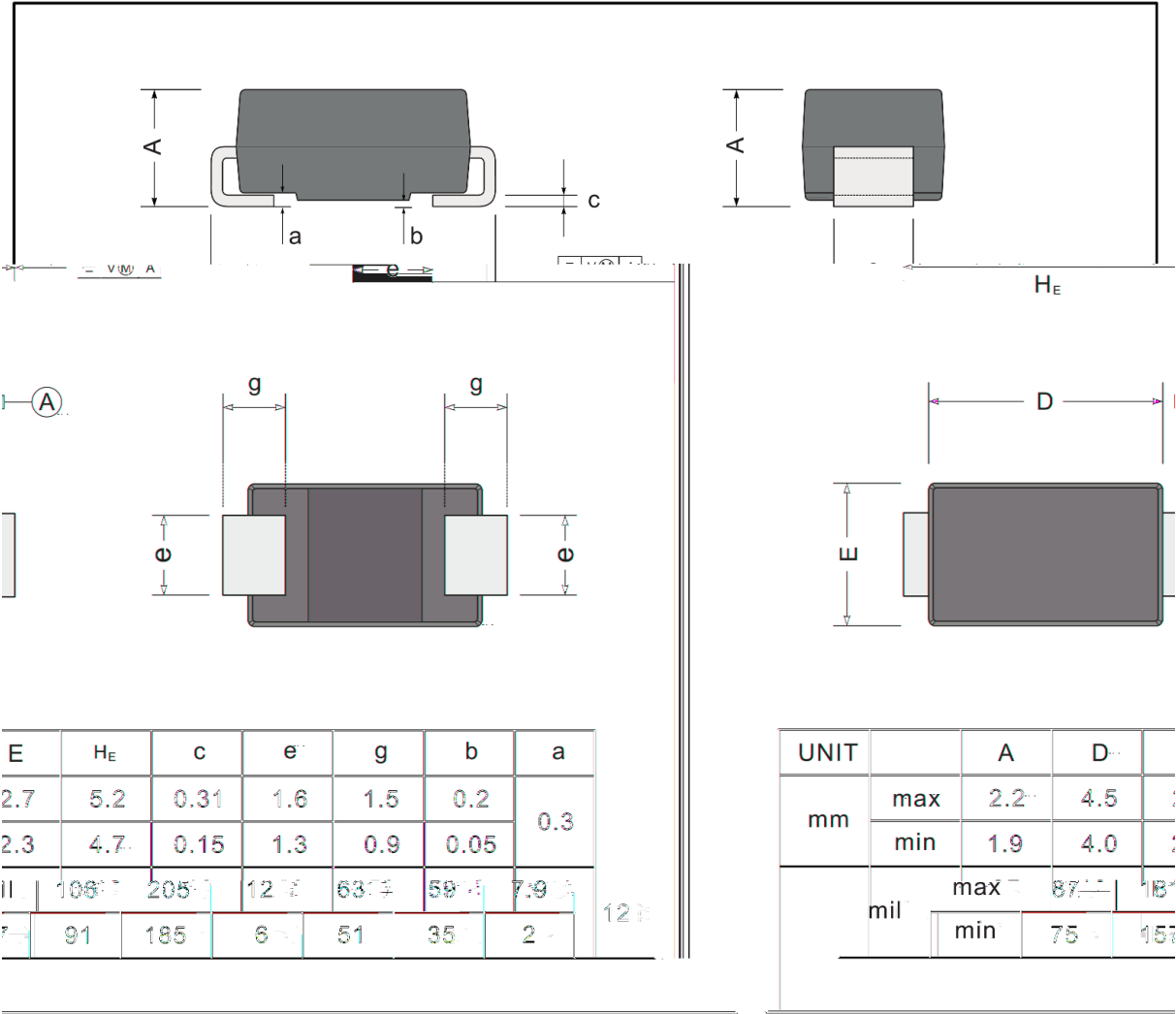


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

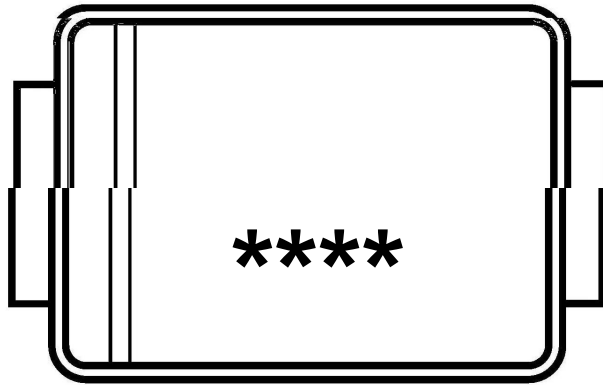


/ Package Dimensions

SMA



/ **Marking Instructions**

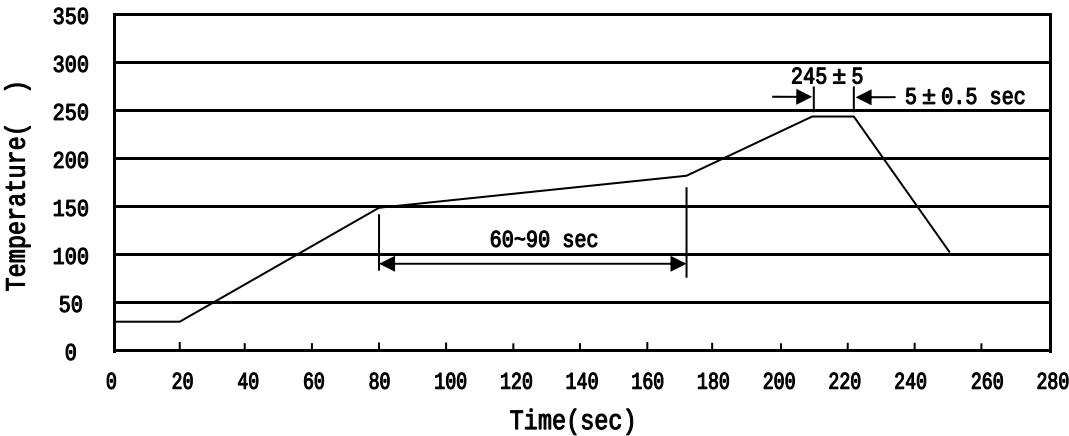


Note:

Product Type Code

Lot No. Code, code change with Lot No

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Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245 5

5 0.5sec;

2.Peak Temp.:245 5 , Duration:5 0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260 5 10 1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SMA	5,000	2	10,000	7	70,000	13 ×12	336×336×40	380×335×366

/ Notices