

/ Descriptions

50V~1000V 1.0A SMAF

Surface Mount General Purpose Silicon Rectifiers,Reverse Voltage:50 to1000V,Forward Current:1.0A,SMAF thin package.

/ Features

RoHS 2011/65/EU

Glass Passivated Chip Junction,Lead free in comply with EU RoHS 2011/65/EU directives,For surface mounted applications,Easy to pick and place,HF Product.

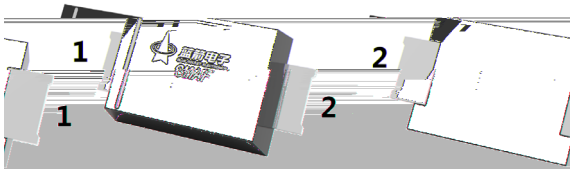
/ Applications

General purpose.

/ Equivalent Circuit

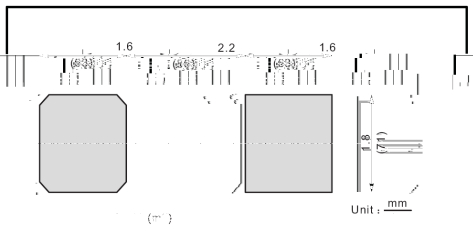


/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating							Unit
		M1	M2	M3	M4	M5	M6	M7	
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 $T_c=125^{\circ}C$	$I_F (AV)$	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Typical Junction Capacitance ¹⁾	C_j	15							pF
Typical Thermal Resistance ²⁾	R_{JA}	80							$^{\circ}C/W$
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							$^{\circ}C/W$

Note:

- 1).Measured at 1 MHz and applied reverse voltage of 4 V.D.C
- 2).P.C.B. mounted with 0.2X0.2"(5X5mm) copper pad areas.

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	数值 Rating							Unit
			M1	M2	M3	M4	M5	M6	M7	
Maximum Instantaneous Forward Voltage	V_F	$I_F=1.0A$	1.1							V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25^{\circ}C$	5.0							A
		$T_a=125^{\circ}C$	50							A

/ Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

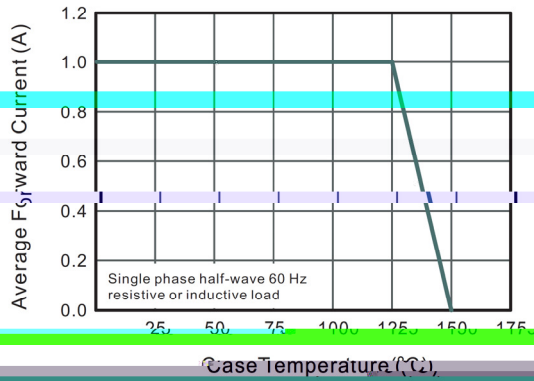


Fig.2 Typical Instantaneous Reverse Characteristics

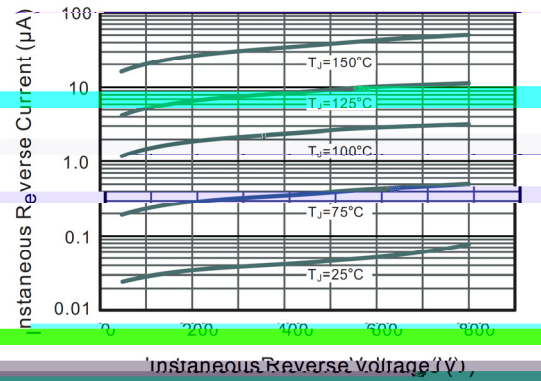


Fig.3 Typical Forward Characteristics

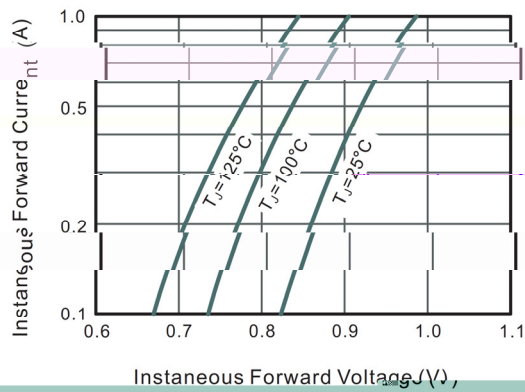


Fig.4 Typical Junction Capacitance

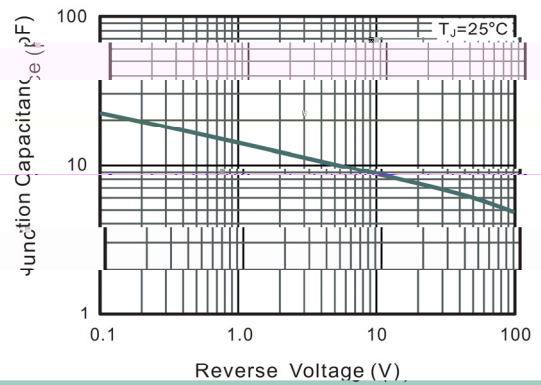
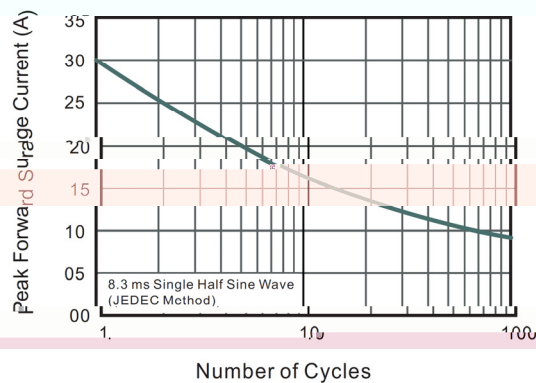
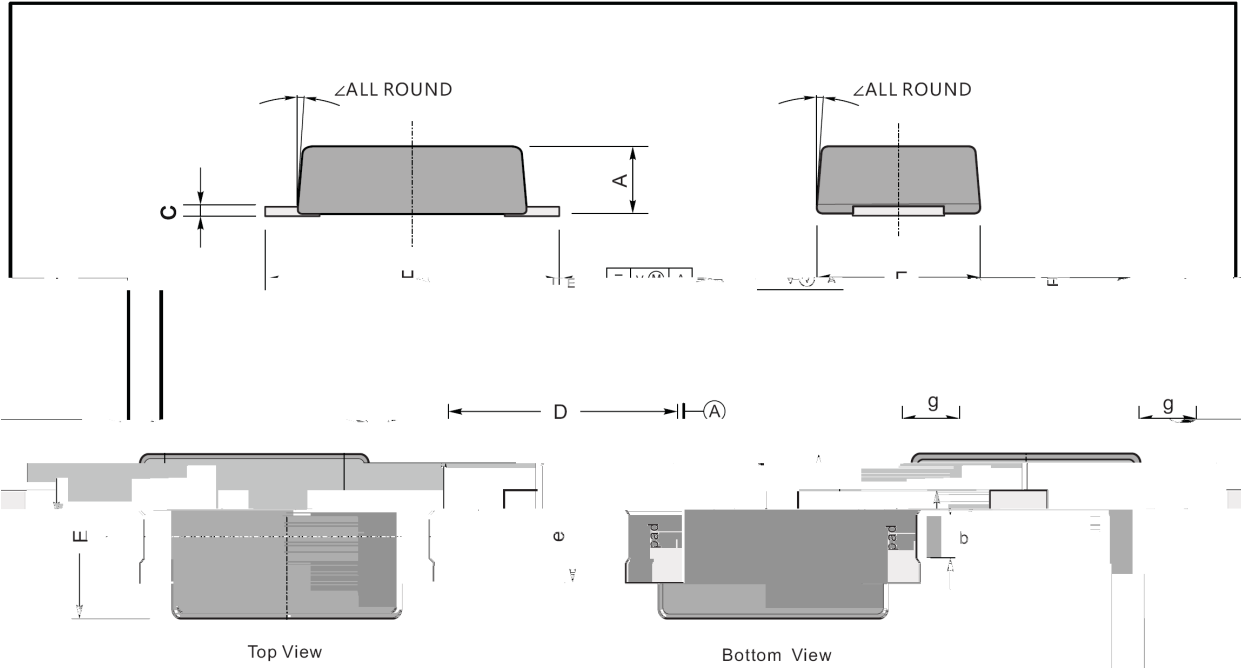


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

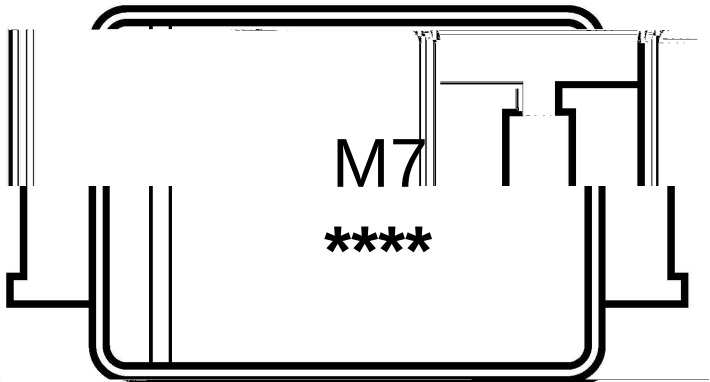


/ Package Dimensions



UNIT		A	C	D	E	e	g	H _E	b	7°
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	1.05	
	min			0.9	0.12	3.3	2.4	1.3	0.8	4.4
	max			47	7.9	146	106	63	47	193
	min			35	6.7	110	73	50	31	120
mil										
mil	max	30	5.1	95	67	41	30	125	26	178
	min			35	5.1	110	73	50	31	120
	max			47	7.9	146	106	63	47	193
	min			35	6.7	110	73	50	31	120

/ Marking Instructions



M7

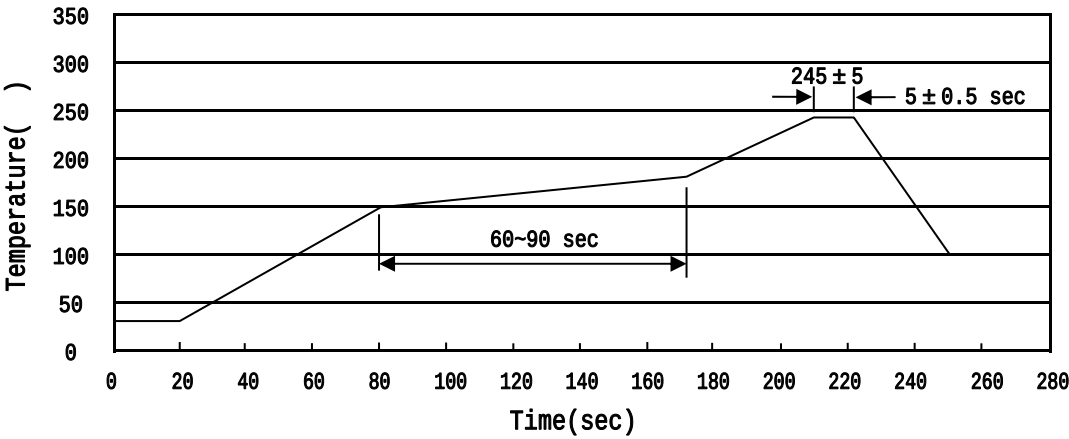
Note:

M7 Product Type Code
**** Lot No. Code, code change with Lot No

Marking

Type number	Marking code
M1	M1
M2	M2
M3	M3
M4	M4
M5	M5
M6	M6
M7	M7

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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
SMAF	3,000	5	15,000	6	90,000	7" ×12	185×180×105	390×385×205

/ Notices