

/ 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.

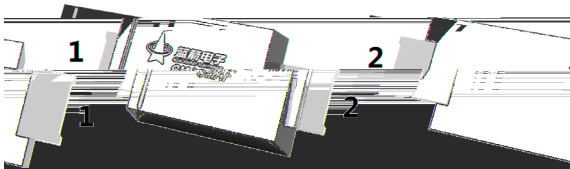
/ Applications

General purpose.

/ Equivalent Circuit

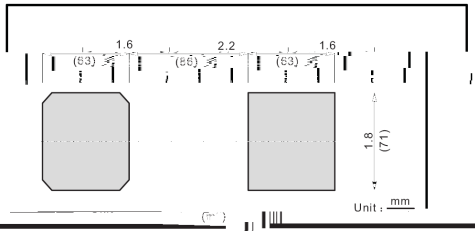


/ Pinning



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

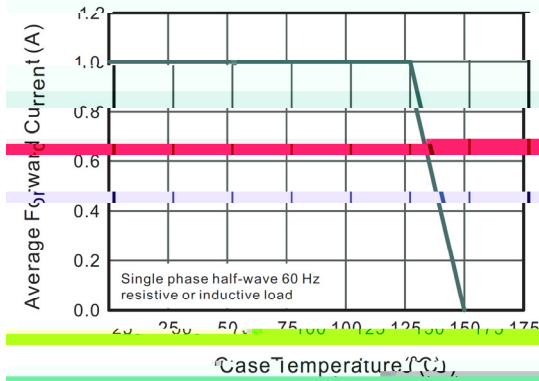


Fig.2 Typical Instantaneous Reverse Characteristics

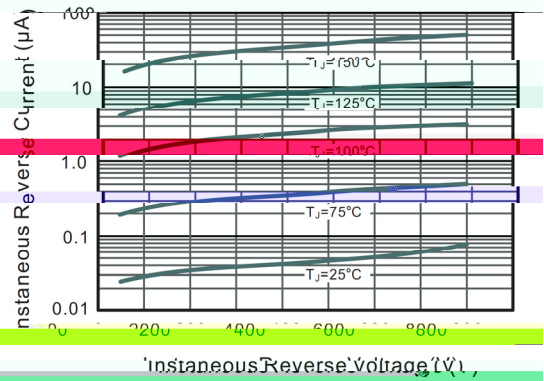


Fig.3 Typical Forward Characteristics

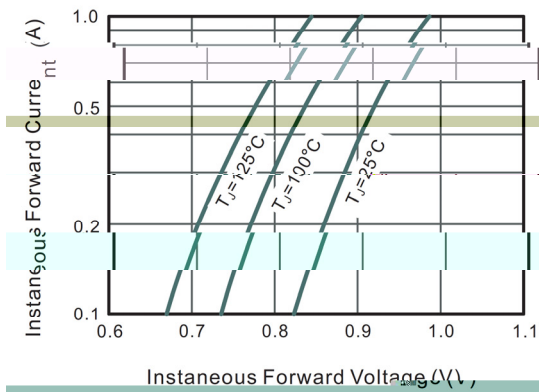


Fig.4 Typical Junction Capacitance

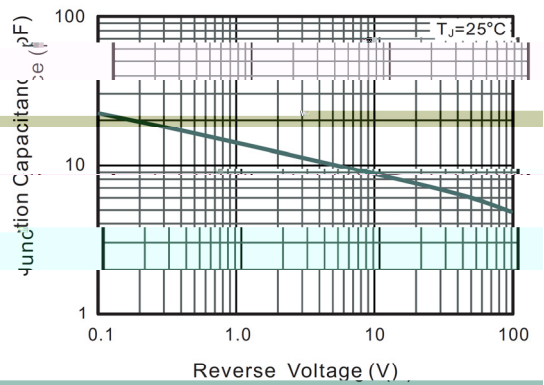
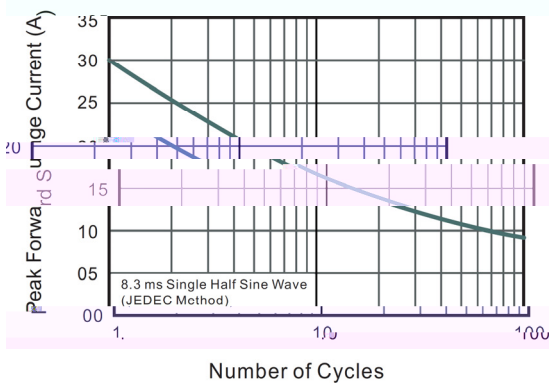
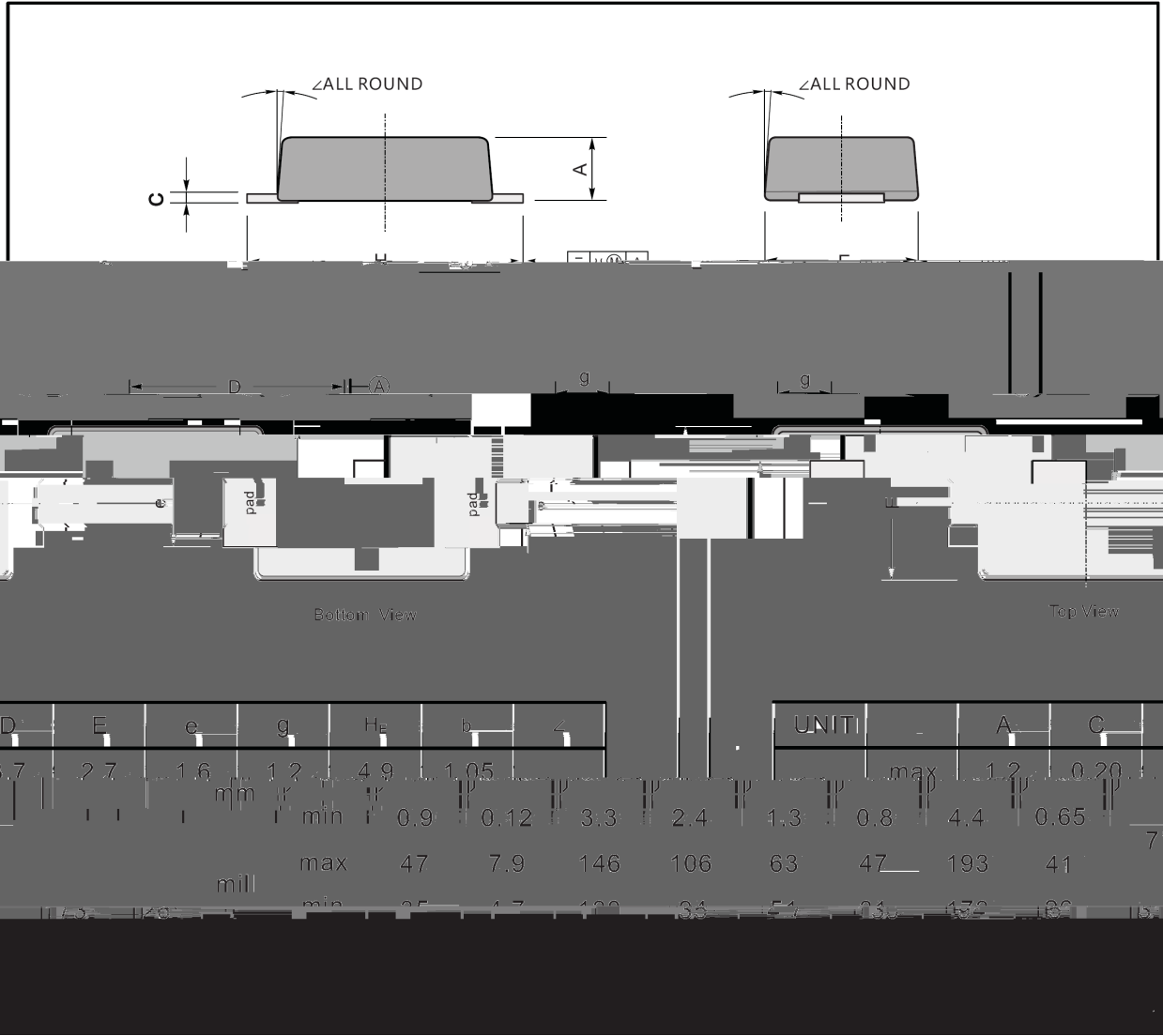


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



/ Package Dimensions



/ Marking Instructions



M7

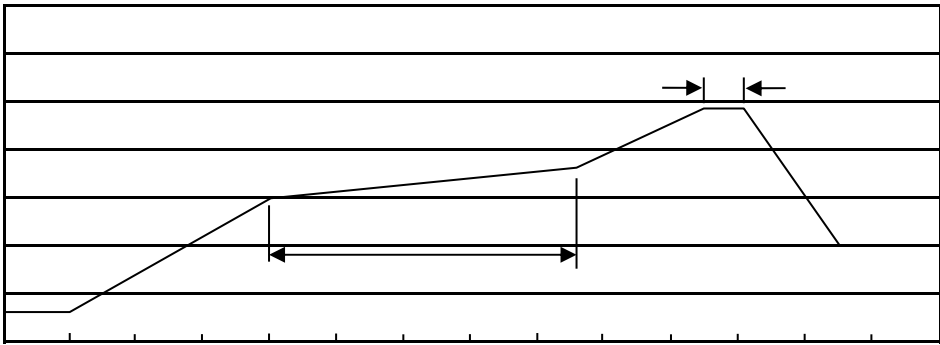
Note:

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



- Note:
- 1

150 180

60 90sec;

2

245±5

5±0.5sec;
- 3

2 10 /sec.
- 1.Preheating:150~180 , Time:60~90sec.

2.Peak Temp.:245±5 , Duration:5±0.5sec.

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

/ Notices