

/ Revised record

	! " #	\$! % & '	! () % * +	, -	. /
E	2017-11				
F	2019-3-15	ALL	0 1 2 3M1~M7 4 5 3SMAF 6 * + 7 8 3 19 1 2 6 : S1AF~S1MF ; 2 9 < = 6 : S1MF/**** ; > ? @ A	B C D	E F G
G	2019-6-4	1 9 4 9 6	H I J K L H M % N O P Q 4 5 R S T U P 9 < = P	B C D	V F W
H	2020-3-23	5 9 6	< = X Y F	Z [	V F W
I	2021-11-17	2	$C_j = 9\text{pF}$ 6 : $C_j = 15\text{pF}$ \ $R_{\theta JA}$ =115℃/W改为 $R_{\theta JA} = 80^\circ\text{C/W}$ 增 加 $R_{\theta JC}$, 更新参数曲线图、回流 焊图。	Z [	V F W

/ Descriptions

表面贴装整流二极管，反向电压：50V~1000V，正向电流：1.0A，薄型 SMAF 封装。

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

/ Features

玻璃钝化芯片，无铅符合欧盟 RoHS 指令 2011/65/EU；适用于表面贴装，便于优化设计。无卤产品。

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

/ Applications

一般用途.

General purpose.

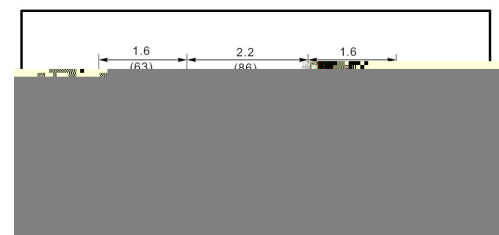
/ Equivalent Circuit



/ Pinning



The recommended mounting pad size



/ Marking

见印章说明。 See Marking Instructions.

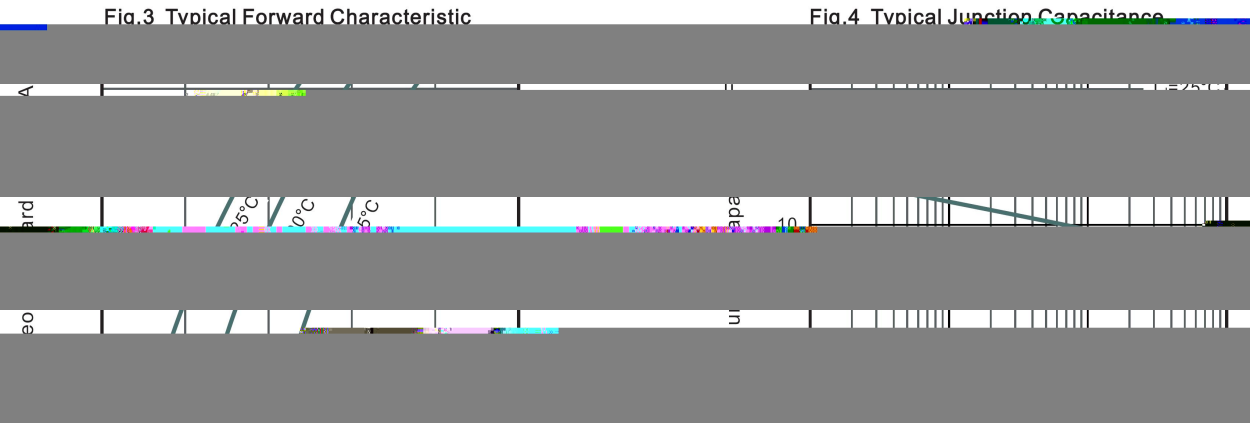
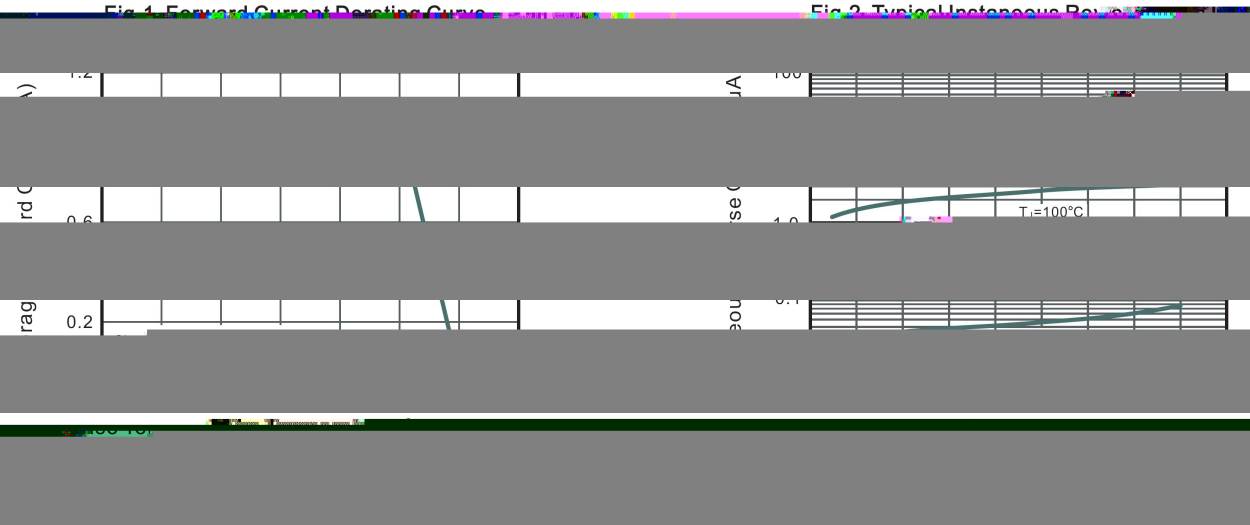
参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		S1AF	S1BF	S1DF	S1GF	S1JF	S1KF	S1MF	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_a = 65^{\circ}\text{C}$	$I_F (AV)$	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⁾	$R_{\theta JA}$	80							$^{\circ}\text{C}/\text{W}$
	$R_{\theta JC}$	27							$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{stg}	-55~+150							$^{\circ}\text{C}/\text{W}$

Note:

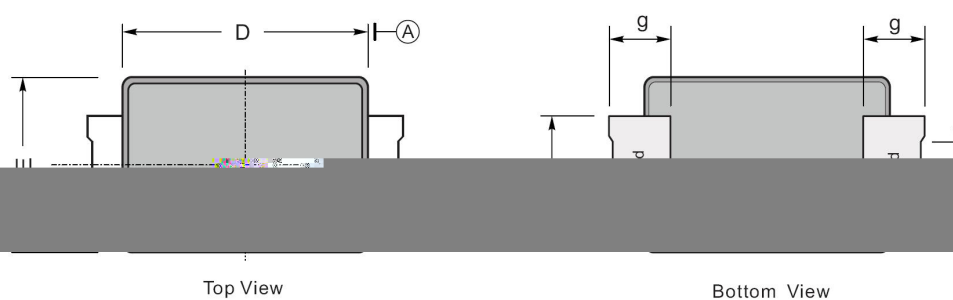
- 1). Measured at 1 MHz and applied reverse voltage of 4 V.D.C
- 2). P.C.B. mounted with 0.2X0.2"(5X5mm) copper pad areas.

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating							单位 Unit
			S1AF	S1BF	S1DF	S1GF	S1JF	S1KF	S1MF	
Maximum Instantaneous Forward Voltage	V_F	$I_F=1.0\text{A}$	1.1							V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25^{\circ}\text{C}$	5.0							μA
		$T_a=125^{\circ}\text{C}$	50							μA

/ Electrical Characteristic Curve

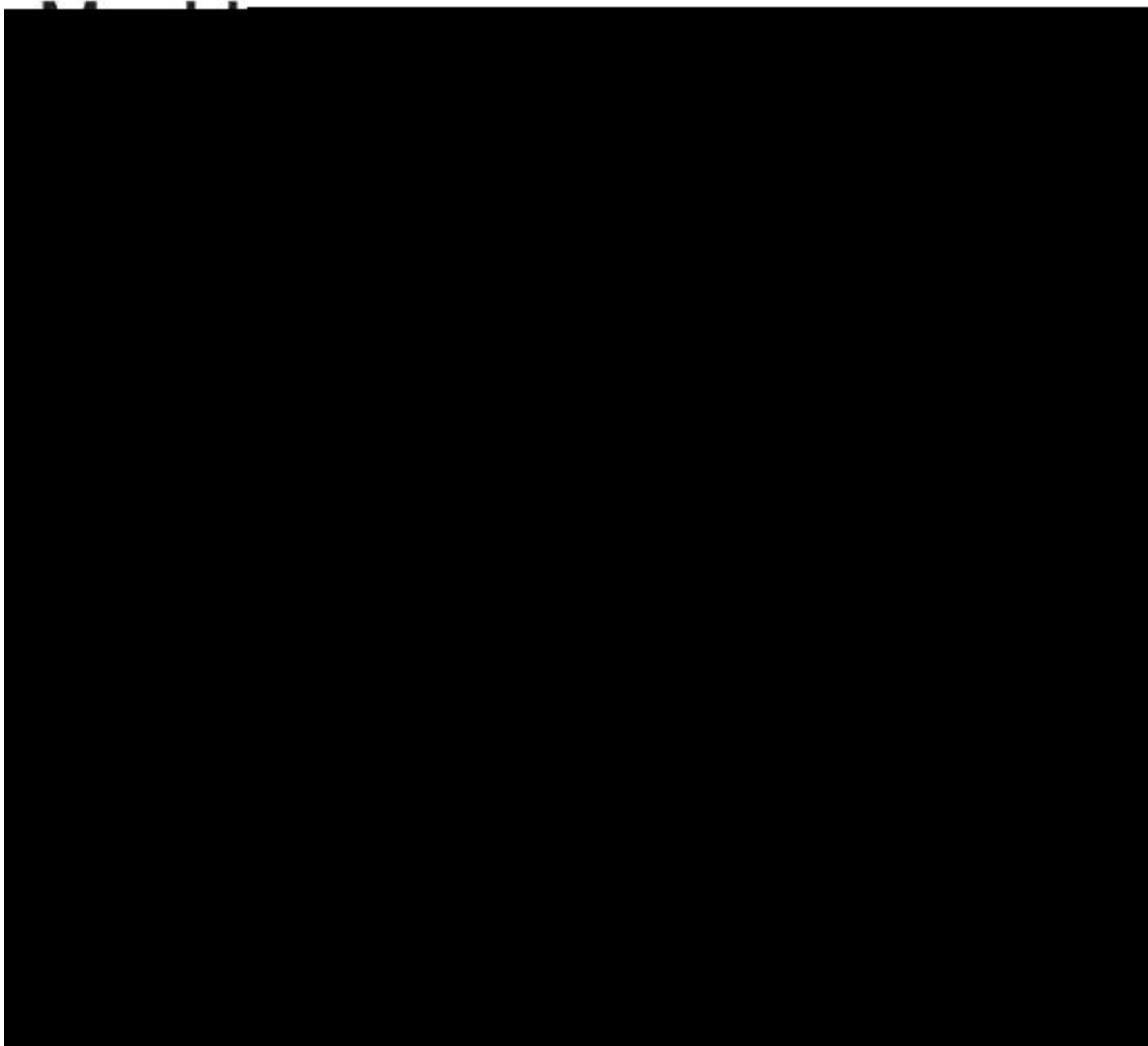


/ Package Dimensions

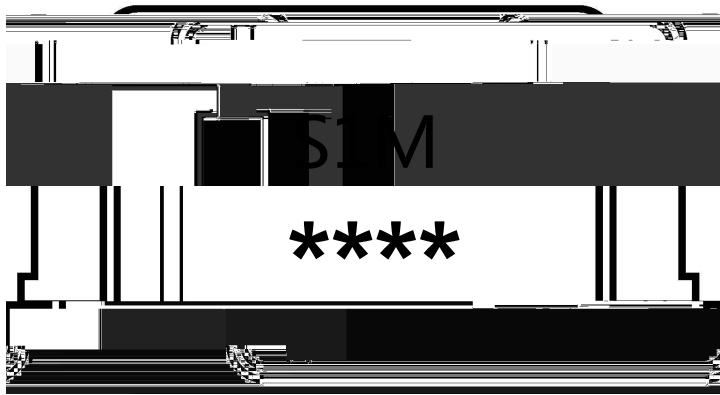


UNIT		A	C	D	E	e	g	H _E	b	∠
	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	1.05	
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	0.65	

/ Marking Instructions



/ Marking Instructions



S1M

1 * 3 *

Note:

S1M Product Type Code

***** Lot No. Code The 1st * means:YM Code The last 3 * means:little Lot
No Code

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

Note:

- | | | | |
|---|---------|-----------|--|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180°C, Time:60~90sec. |
| 2 | 245±5 | 5±0.5sec; | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | 2 | 10°C/sec. | 3. Cooling Speed: 2~10°C/sec. |

/ **Resistance to Soldering Heat Test Conditions**

260±5°C	10±1 sec.	Temp.:260±5°C	Time:10±1 sec
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/ **Packaging SPEC.**

/ REEL

Package Type	Units				Dimension	(unit mm ³)
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱	