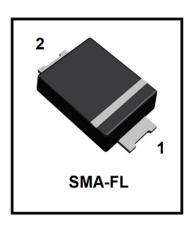


# **S-SM2100AF**

## Schottky Barrier Rectifiers Reverse Voltage 100V Forward Current 2.0A

#### 1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for over voltage protection
- High temperature soldering guaranteed: 260°C/10 seconds at terminals





#### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
S-SM2100AF	S210	3000/Tape&Reel

### 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit	
Maximum repetitive peak reverse voltage	VRRM	100	V	
Maximum RMS voltage	VRMS	70	V	
Maximum DC blocking voltage	VDC	100	V	
Maximum average forward rectified current	IF(AV)	2	Α	
at TC = 85°C (See fig. 1)	IF(AV)			
Peak forward surge current 8.3ms single half sine-wave	IFSM	60	А	
superimposed on rated load (JEDEC Method)	IFSIVI	00		
Typical thermal registance (Note 1)	RθJA	150	°C/W	
Typical thermal resistance (Note 1)	RθJL	35	C/VV	
Operating junction and storage temperature range	TJ, TSTG	<b>−</b> 40 ~+150	°C	

### 4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

	- /				
Characteristic	Symbol	Min.	Тур.	Max.	Unit
Maximum instantaneous forward voltage at 2.0A	VF	-	-	0.85	V
Maximum DC reverse current TA = 25°C	IR	-	-	0.5	mA
at rated DC blocking voltage Tj = 125°C	IK IK	-	-	5	IIIA
Typical junction capacitance at 4.0V, 1MHz	CJ	-	110	-	PF

<sup>1. 8.0</sup>mm<sup>2</sup> (.013mm thick) land areas



#### 5. ELECTRICAL CHARACTERISTICS CURVES

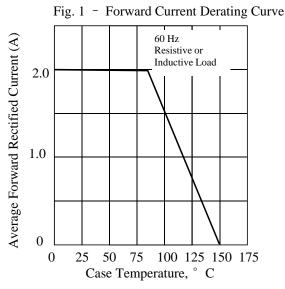
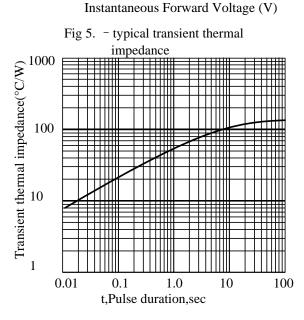
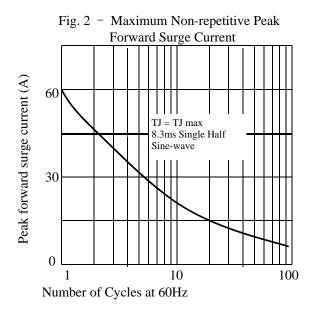
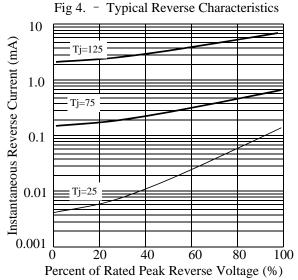
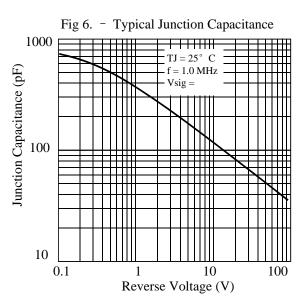


Fig 3. - Typical Instantaneous Forward Characteristics 100 Instantaneous Forward Current (A)  $TJ = 25^{\circ} C$ Pulse width =  $300\mu$ s 1% Duty Cycle 10 1.0 0.1 0.01 0.4 0.2 0.6 0.8 1.0 1.2



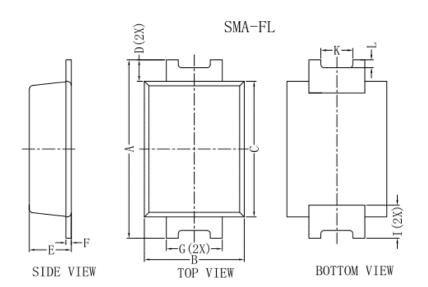








#### **6.OUTLINE AND DIMENSIONS**

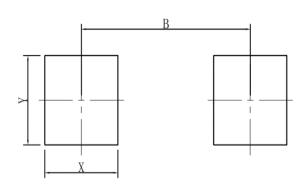


SMA-FL			
DIM	MIN	MAX	Тур.
Α	4.40	4.80	4.60
В	2.30	2.70	2.60
С	3.30	3.70	3.50
D	-	ı	0.55
Е	0.90	1.20	1.05
F	0.11	0.21	0.17
G	1.30	1.50	1.40
ı	1	1	0.90
K	1	1	0.80
Ĺ	-	-	0.20
All Dimensions in mm			

#### **GENERAL NOTES**

- 1.Top package surface finish Ra0.4±0.2um
- 2.Bottom package surface finish Ra0.7±0.2um

### 7.SOLDERING FOOTPRINT



SMA-FL		
DIM	(mm)	
Χ	1.60	
Υ	1.80	
В	3.70	



#### **DISCLAIMER**

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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