

# **S2ABF THRU S2MBF**

### 2.0 AMP SURFACE MOUNT SILICON RECTIFIERS

**VOLTAGE RANGE: 50Volts TO 1000Volts** 

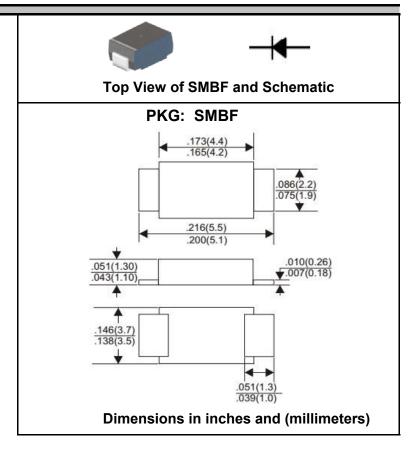
**CURRENT**: 2.0 Ampere

### **Features**

- \* Ideal for surface mount applications
- \* Easy pick and place
- \* Built-in strain relief
- Low forward voltage drop

#### **Mechanical Data**

- \* Case: Molded plastic SMBF
- \* Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solder plated, solderable per MIL-STD-202F, method 208 guranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.093 grams



## **Maximum Ratings and Electrical Characteristics**

Rating 25'C ambient temperature unless otherwies specified.

Single phase half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER			S2ABF	S2BBF	S2DBF	S2GBF	S2JBF	S2KBF	S2MBF	units
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		VR	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T <sub>J</sub> =75'C		lo	2.0							Α
Peak Forward Surge Current, 8.3ms single half sinewave superimposed on rated load (JEDEC method)		IFSM	60							Α
Maximum Instantaneous Forward Voltage at 2.0A		VF	1.1						V	
Maximum DC Reverse Current at Rate DC Blocking Voltage	TJ=25'C	- IR	5.0							uA
	TJ=100'C	] IR	200							uA
Typical Junction Capacitance Note1		C		30						
Typical Thermal Resistance Note2		RJA		16						
Operating and Storage Temperature Range		Тл, Тsтg		- 65 ~ + 150						

Note: 1 Measured at 1MHz and applied reverse voltage of 4.0V D.C

2 Thermal Resistance Junction to Lead



50

10

3.0

1.0

0.1

.01

.6

INSTANTANEOUS FORWARD CURRENT, (A)

## Typical Characteristics (TJ = 25'C unless otherwise noted)

FIG.1-TYPICAL FORWARD
CHARACTERISTICS

Tj=25°C

Pulse Width 300us
1% Duty Cycle

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

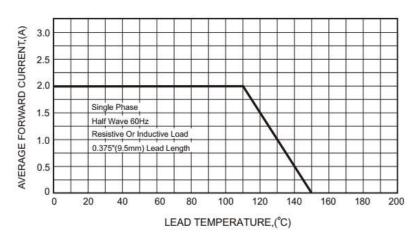


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

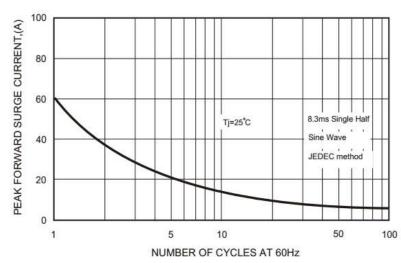


FIG.3 - TYPICAL REVERSE

.8

.9

FORWARD VOLTAGE,(V)

1.0

1.1

1.2

1.3

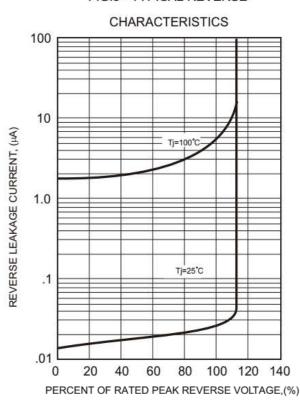
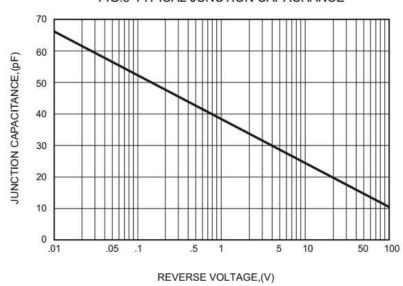


FIG.5-TYPICAL JUNCTION CAPACITANCE



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