

## S5ABF - S5MBF SURFACE MOUNT RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V CURRENT: 5.0 A

## **Features**

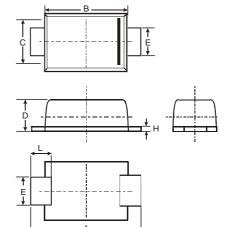
- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O

## **Mechanical Data**

- Case:SMBF , Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.0018 ounces,0.05grams







SMBF								
Dim	Min	Max	Тур					
Α	5.45	5.55	5.50					
В	4.27	4.33	4.30					
С	3.57	3.63	3.60					
D	1.32	1.38	1.35					
Е	1.96	2.00	1.98					
Н	0.019	0.021	0.20					
L	0.73	0.77	0.75					
All Dimensions in mm								

## Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

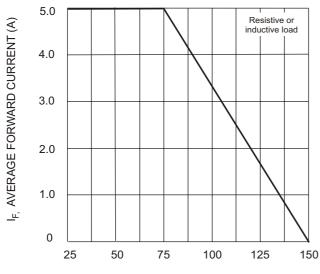
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic		Symbol	S5ABF	S5BBF	S5DBF	S5GBF	S5JBF	S5KBF	S5MBF	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		Vrrm Vrwm Vr	50	100	200	400	600	800	1000	V
RMS Reverse Voltage		VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>L</sub> = 75°C		lo	5.0							Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	100							А
Forward Voltage	@I <sub>F</sub> = 5.0A	VFM	1.15							V
Peak Reverse Current At Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C @T <sub>A</sub> = 125°C	IRM	10 250						μΑ	
Typical Junction Capacitance (Note 1)		Cj	40							pF
Typical Thermal Resistance (Note 2)		$R_{\theta}$ JL	10							°C/W
Operating and Storage Temperature Range		Тj, Tsтg	-65 to +150						°C	

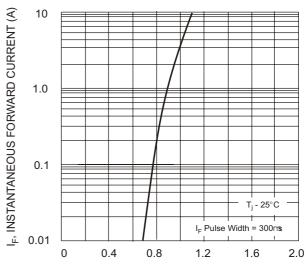
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.

2. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.

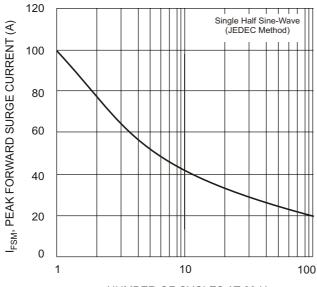




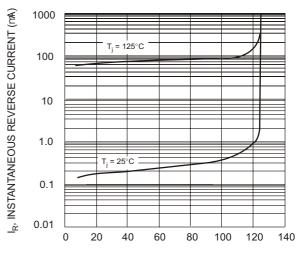
T<sub>T</sub>, TERMINAL TEMPERATURE (°C) Fig. 1 Forward Current Derating Curve



 $V_{\text{F}}$ , INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz Fig. 3 Forward Surge Current Derating Curve



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 4 Typical Reverse Characteristics