

RS3ABF-AT THRU RS3MBF-AT

SURFACE MOUNT FAST RECOVERY RECTIFIERS

Forward Current-3.0A

Reverse Voltage-50V to 1000V

FEATURES

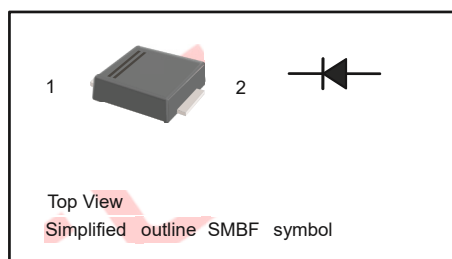
- ◆ For surface mount applications
- ◆ Glass passivated chip junction
- ◆ Low profile package
- ◆ Fast reverse recovery time
- ◆ Lead free in comply with EU RoHS2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SMBF molded plastic body
- ◆ Terminals: Solderable per MIL-STD-750 , Method 2026
- ◆ Weight: Approximated 0.057 grams

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derating by 20 %.

PARAMETER	SYMBOL	RS3ABF -AT	RS3BBF -AT	RS3DBF -AT	RS3GBF -AT	RS3JBF -AT	RS3KBF -AT	RS3MBF -AT	UNIT
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°C	I _{F(AV)}	3.0							A
Peak Forward Surge Current (Note1)	I _{FSM}	100							A
Maximum Forward Voltage at 3.0 A	V _F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage at T _A =25°C T _A =125°C	I _R	5 100							uA
Typical Junction Capacitance at V _R =4V, f=1MHz	C _J	40							pF
Maximum Reverse Recovery Time (Note2)	T _{rr}	150				250	500		nS
Typical Thermal Resistance (Note3)	R _{θJA} R _{θJC}	45 15							°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to +150							°C

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

2. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$.

3. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Dated: 06/2016

Rev:1.0

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Maximum Average Forward Current Rating

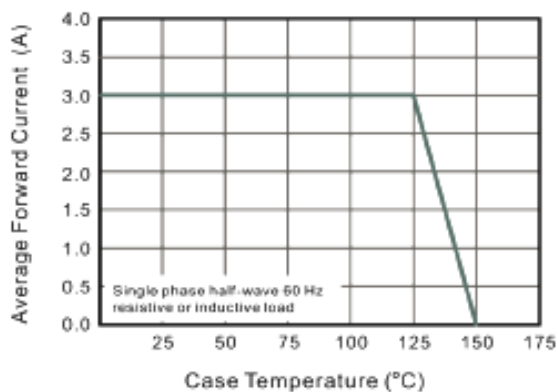


Fig.2 Typical Reverse Characteristics

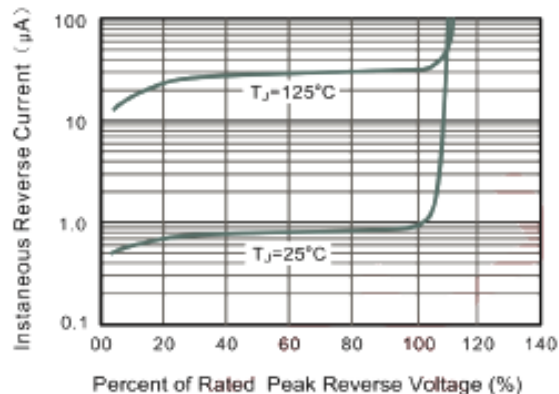


Fig.3 Typical Instantaneous Forward Characteristics

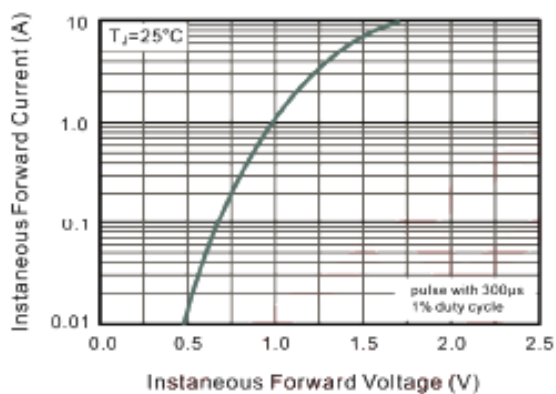


Fig.4 Typical Junction Capacitance

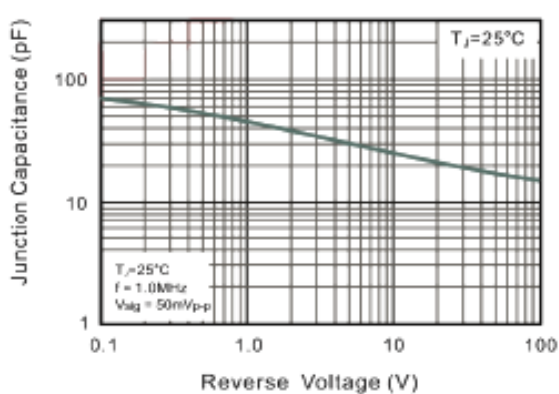
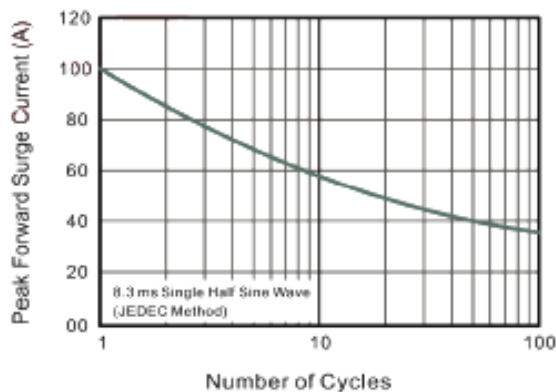


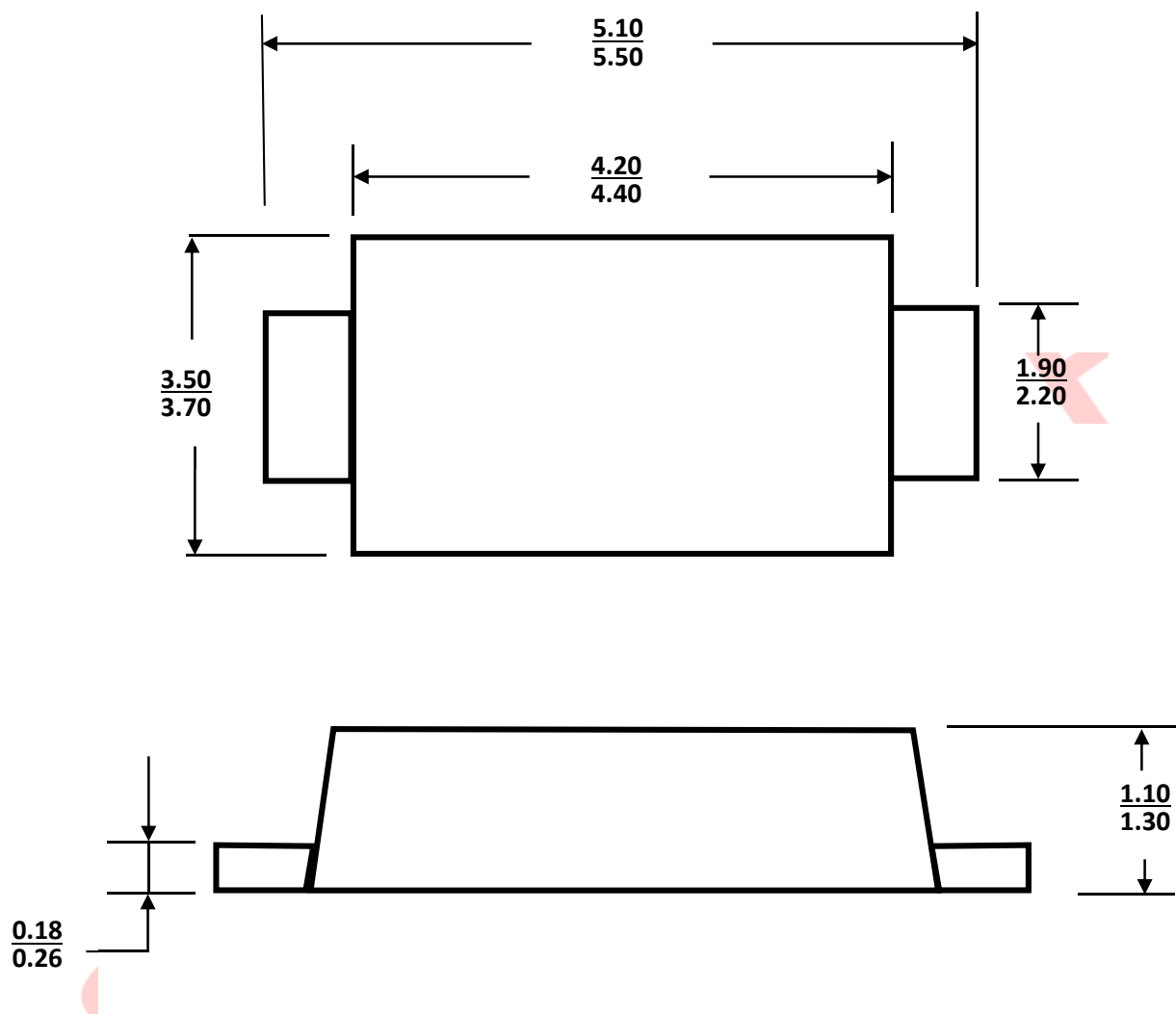
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



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PACKAGE OUTLINE

SMBF



Dimensions in millimeters

ORDERING INFORMATION

Device	Package	Shipping
RS3ABF-AT thru RS3MBF-AT	SMBF	5,000/ Tape & Reel (13 inches)

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