

## Fast Recovery Surface Mount Rectifier

### Reverse Voltage 1000 Volts Forward Current 3.0 Amperes

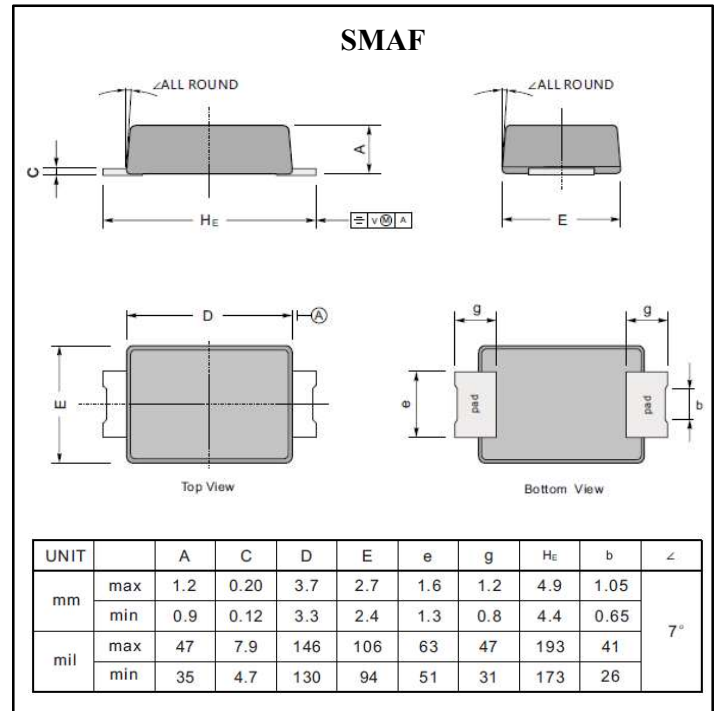
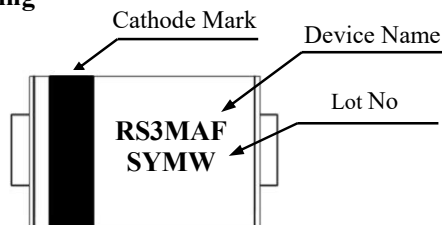
#### Features

- For surface mounted application
- Glass passivated junction chip
- Fast switching for high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

#### Mechanical Data

- Case : SMAF
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Approx. Weight : 0.027gram

#### Marking



#### Maximum Ratings & Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified  
 Single phase half wave 60 HZ, resistive or inductive load  
 For capacitive load, derate current by 20%

Parameter	Symbol	Rated Value	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	1000	V	
Maximum Average Forward Rectified Current See Fig.1	I <sub>F(AV)</sub>	3.0	A	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	80	A	
Maximum Instantaneous Forward Voltage at 3.0A	V <sub>F</sub>	1.3	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	5	uA	Ta=25°C
		150	uA	Ta=125°C
Maximum Reverse Recovery Time	trr	160	ns	Note 1
Typical Junction Capacitance	C <sub>J</sub>	60	pF	Note 2
Typical Thermal Resistance	Rth(j-a)	60	°C/W	Note 3
	Rth(j-l)	15	°C/W	
Operation Junction Temperature Range	T <sub>J</sub>	-55 to +150	°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C	

Note 1. Reverse Recovery Test Conditions : I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

Note 2. Measured at 1MHz and applied reverse voltage of 4.0 volts

Note 3. Mounted on glass epoxy PC board with 4 × 1.0" × 1.0" (2.54 × 2.54 cm) copper pad.



Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

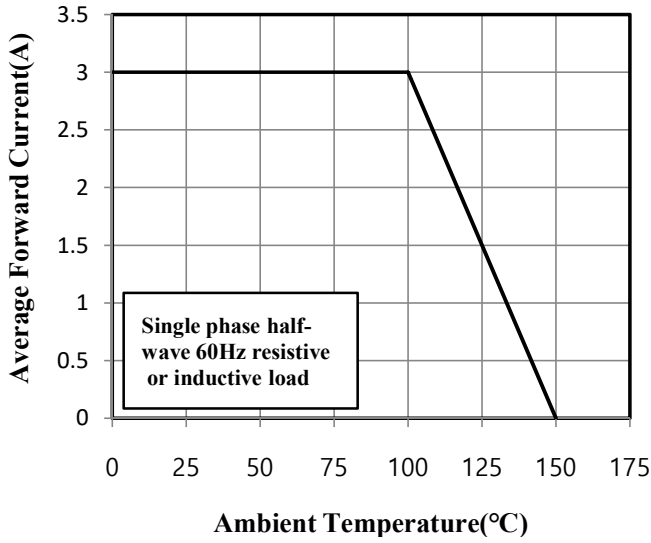


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

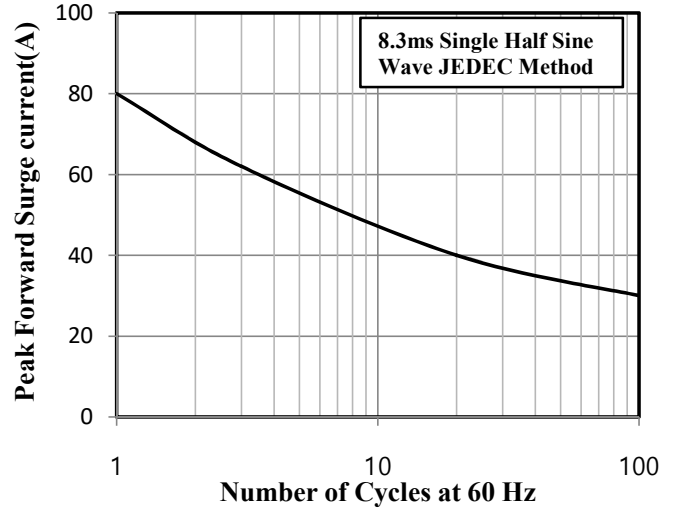


Fig.3 Typical Instantaneous Forward Characteristics

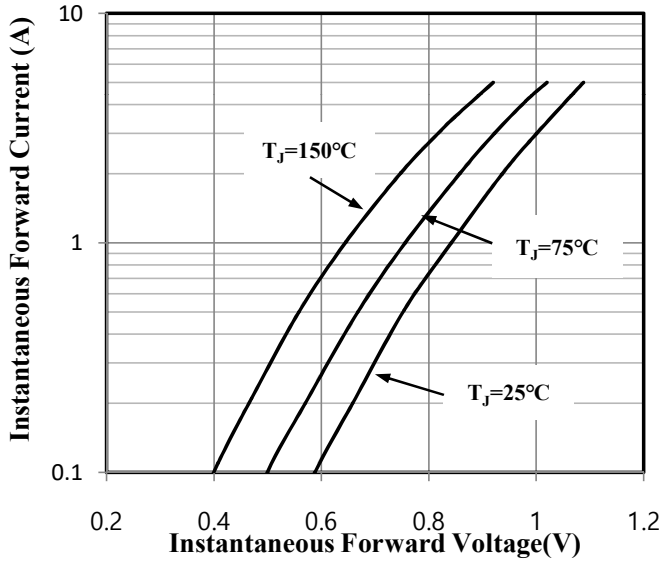


Fig.4 Typical Junction Capacitance

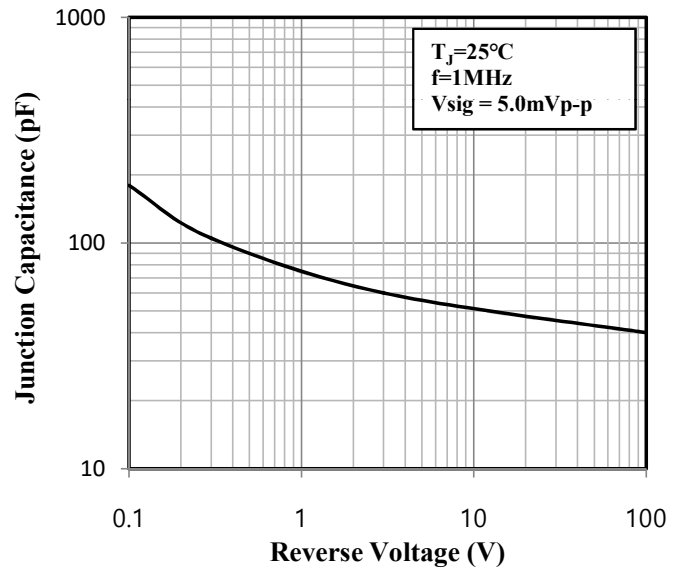


Fig.5 Typical Reverse Characteristics

