

Surface Mount Glass Passivated Junction Fast Recovery Rectifier Reverse Voltage 1000 Volts Forward Current 2.0 Amperes

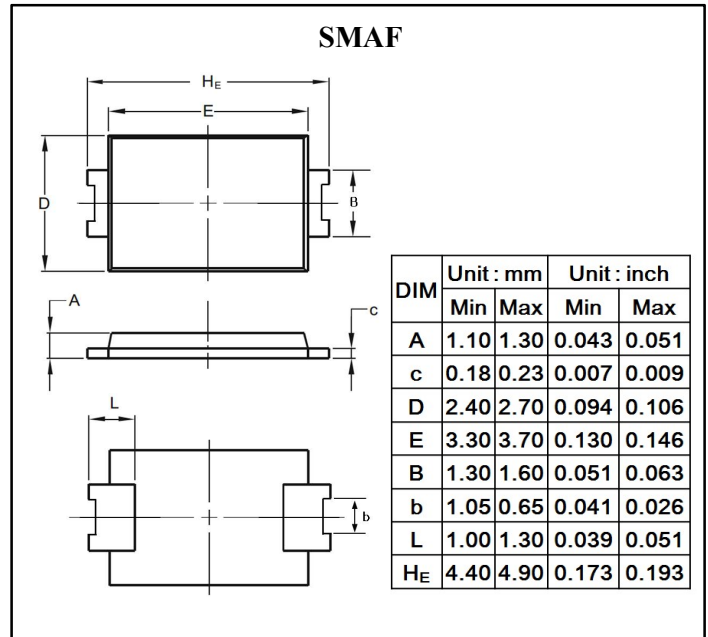
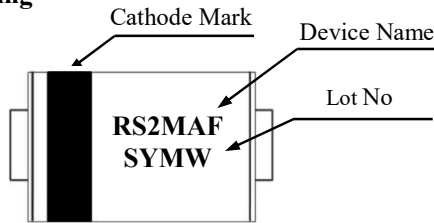
Features

- 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_{RRM}	1000	V	
Maximum RMS Voltage	V_{RMS}	700	V	
Maximum DC Blocking Voltage	V_{DC}	1000	V	
Maximum Average Forward Rectified Current See Fig.1	$I_F(AV)$	2.0	A	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	60	A	
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.3	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5	uA	Ta=25°C
		100	uA	Ta=125°C
Maximum Reverse Recovery Time	t_{rr}	160	ns	Note 1
Typical Junction Capacitance	C_j	15	pF	Note 2
Typical Thermal Resistance	$R_{th(j-a)}$	50	°C/W	Note 3
	$R_{th(j-l)}$	25	°C/W	
Operation Junction Temperature Range	T_j	-55 to +150	°C	
Storage Temperature Range	T_{STG}	-55 to +150	°C	

Note 1. Reverse Recovery Test Conditions : $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

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

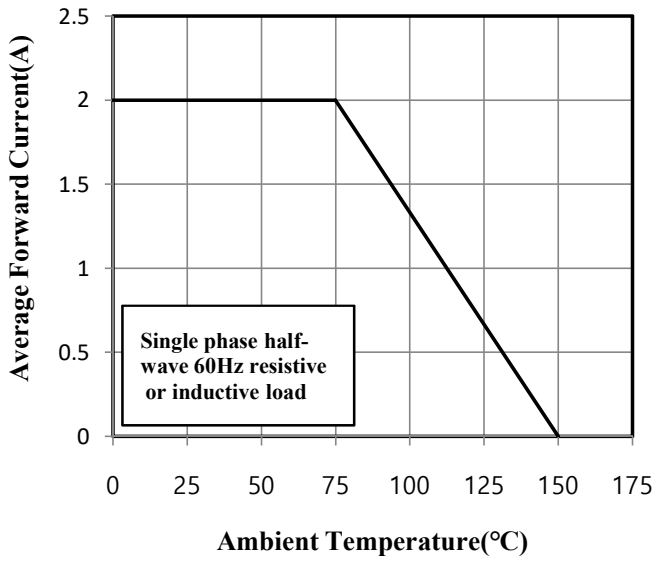


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

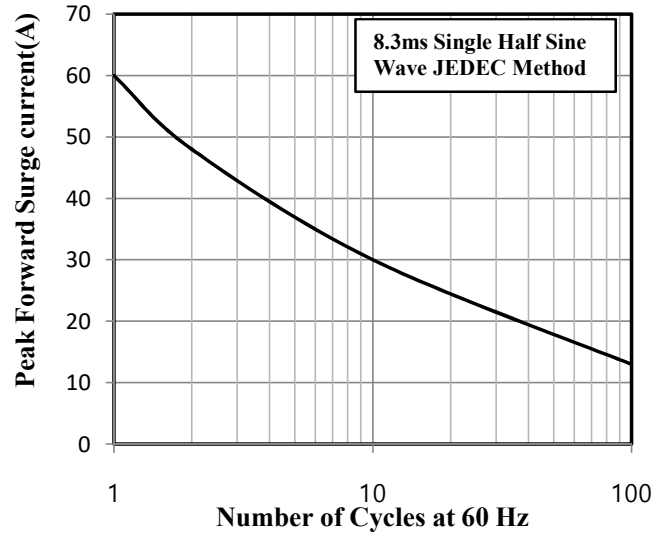


Fig.3 Typical Instantaneous Forward Characteristics

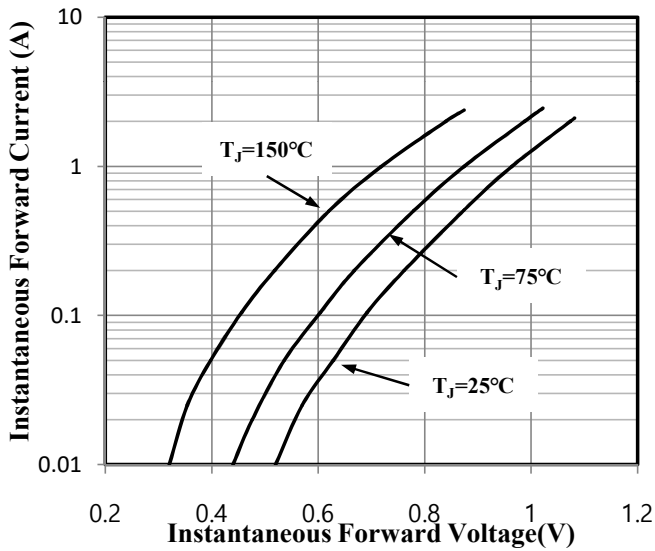


Fig.4 Typical Junction Capacitance

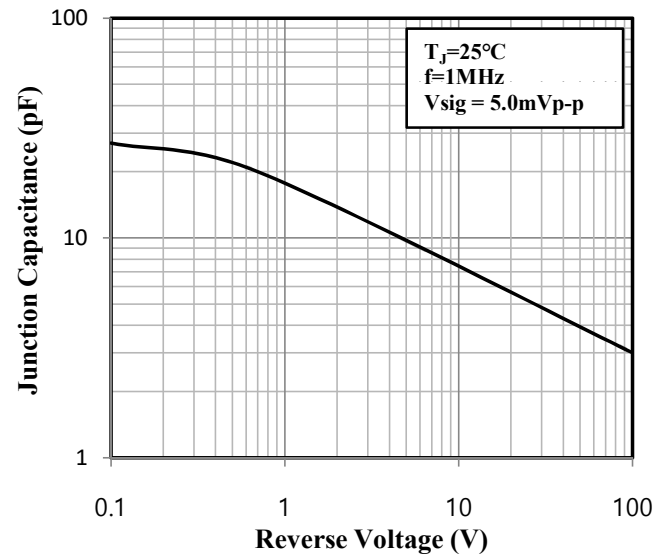


Fig.5 Typical Reverse Characteristics

