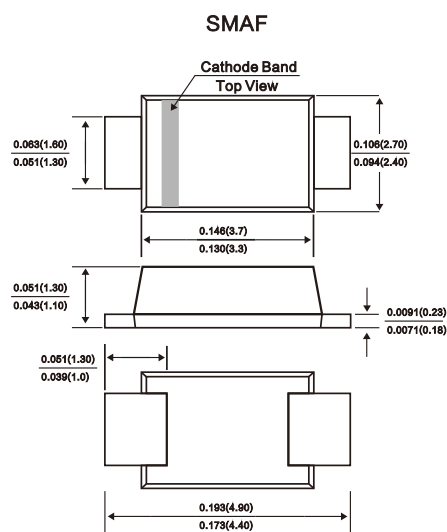


**FEATURES**

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, 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
- Approx. Weight: 27mg / 0.00095oz



Dimensions in inches and (millimeters)

**Absolute Maximum Ratings and Electrical characteristics**

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

Parameter	Symbols	SS12F	SS14F	SS16F	SS18F	SS110F	SS112F	SS115F	SS120F	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	40				30				A
Max Instantaneous Forward Voltage at 1 A	$V_F$	0.55	0.70		0.85		0.90		V	
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$	0.3 10				0.2 5		0.1 2		mA
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	110			80					pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	95								°C/W
Operating Junction Temperature Range	$T_j$	-55 ~ +150								°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150								°C

( 1 ) Measured at 1 MHz and applied reverse voltage of 4 V D.C

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

Fig.1 Forward Current Derating Curve

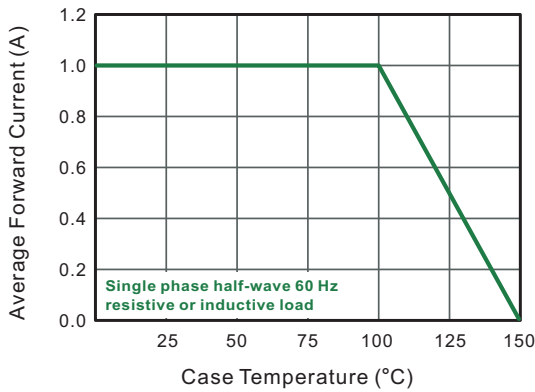


Fig.2 Typical Reverse Characteristics

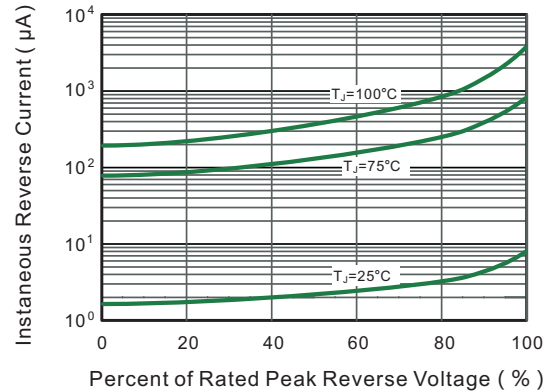


Fig.3 Typical Forward Characteristic

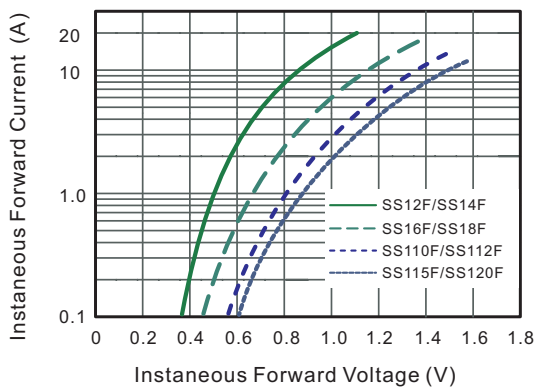


Fig.4 Typical Junction Capacitance

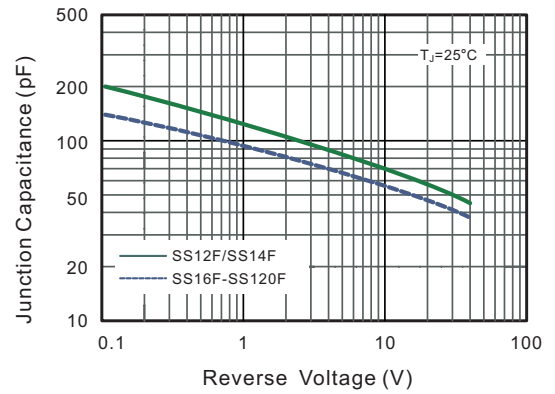


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

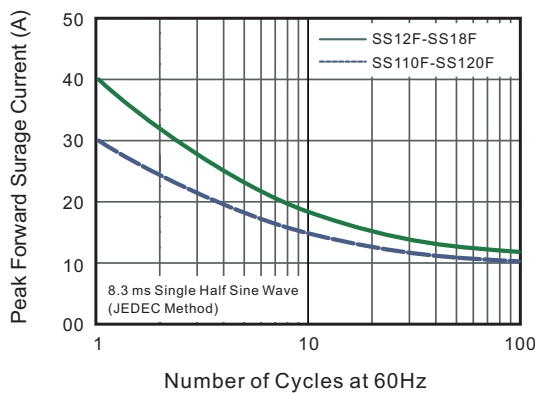
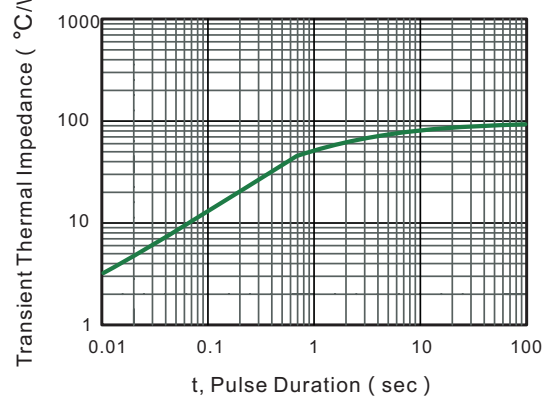


Fig.6- Typical Transient Thermal Impedance



**ORDERING INFORMATION**

Order Code	Package	Baseqty	Deliverymode
UMW SS12F	SMAF	3000	Tape and reel
UMW SS14F	SMAF	3000	Tape and reel
UMW SS16F	SMAF	3000	Tape and reel
UMW SS18F	SMAF	3000	Tape and reel
UMW SS110F	SMAF	3000	Tape and reel
UMW SS112F	SMAF	3000	Tape and reel
UMW SS115F	SMAF	3000	Tape and reel
UMW SS120F	SMAF	3000	Tape and reel