UMW SS12F THRU SS120F

20V-200V 1A

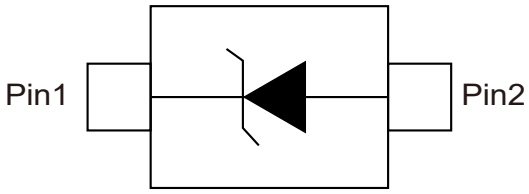
1.Features

- 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

2.Mechanical Data

- Case: SMAF
- Approx. Weight: 27mg 0.00095oz
- Terminals: Solderable per MIL-STD-750 Method 2026

3.Pinning information



SMAF

4.Maximum Ratings And Electrical Characteristics

Parameter		Symbols	SS 12F	SS 14F	SS 16F	SS 18F	SS 110F	SS 112F	SS 115F	SS 120F	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								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°C	I_R	0.30				0.2		0.1		mA
at Rated DC Reverse Voltage	T_A=100°C		10				5		2		mA
Typical Junction Capacitance (Note1)		C_J	110		80						pF
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	95								°C/W
Junction Temperature Range		T_J	-55 to 150								°C
Storage Temperature Range		T_{STG}	-55 to 150								°C

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

Notes:

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.

5.Typical characteristic

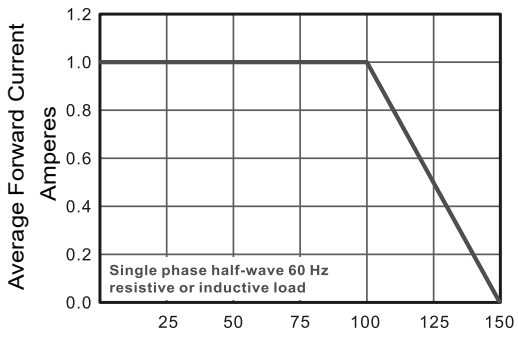


Figure 1: Forward Current Derating Curve

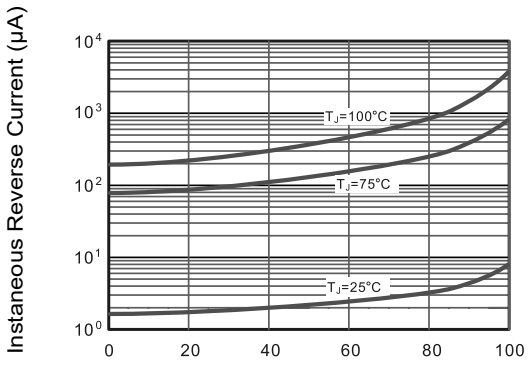


Figure 2: Typical Reverse Characteristics

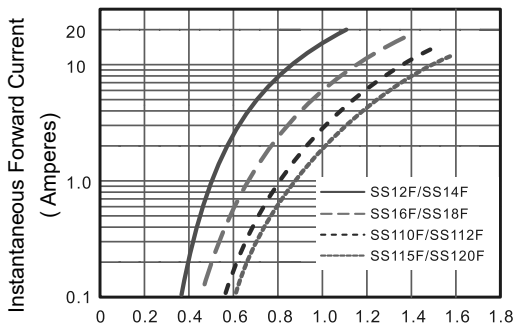


Figure 3: Typical Forward Characteristic

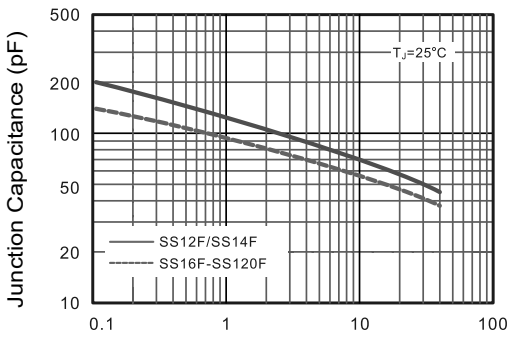


Figure 4: Typical Junction Capacitance

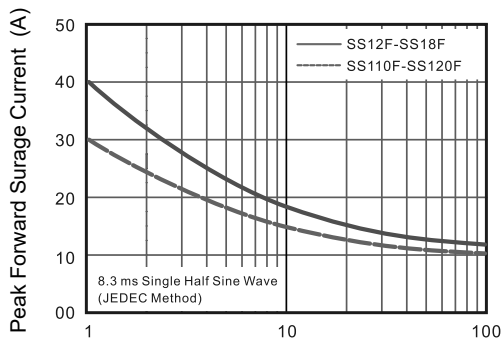


Figure 5: Maximum Non-Repetitive Peak Forward Surage Current

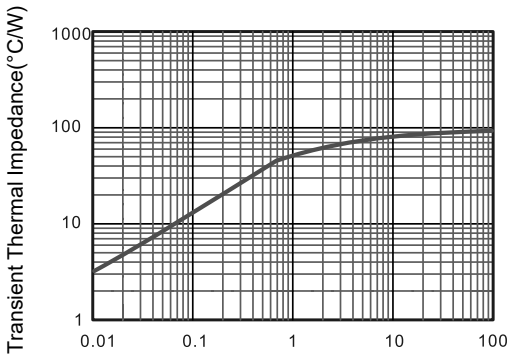
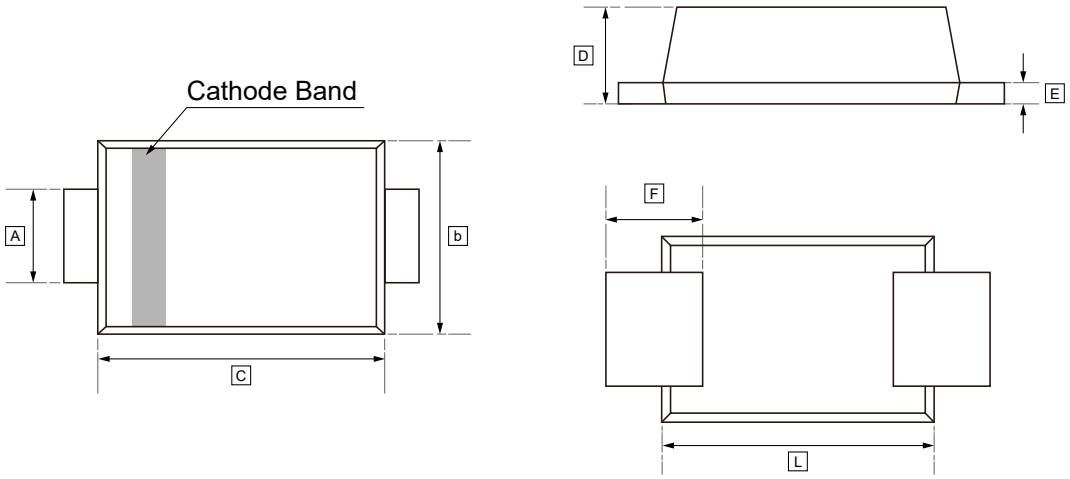


Figure 6: Typical Transient Thermal Impedance

6.SMAF Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	b	C	D	E	F	L
Min	1.30	2.40	3.3	1.10	0.18	1.0	4.40
Max	1.60	2.70	3.7	1.30	0.23	1.30	4.90

7 .Ordering information



Order Code	Marking	Package	Base QTY	Delivery Mode
UMW SS12F	SS12	SMAF	3000	Tape and reel
UMW SS14F	SS14	SMAF	3000	Tape and reel
UMW SS16F	SS16	SMAF	3000	Tape and reel
UMW SS18F	SS18	SMAF	3000	Tape and reel
UMW SS110F	SS110	SMAF	3000	Tape and reel
UMW SS112F	SS112	SMAF	3000	Tape and reel
UMW SS115F	SS115	SMAF	3000	Tape and reel
UMW SS120F	SS120	SMAF	3000	Tape and reel

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