

SS12F THRU SS120F

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 V

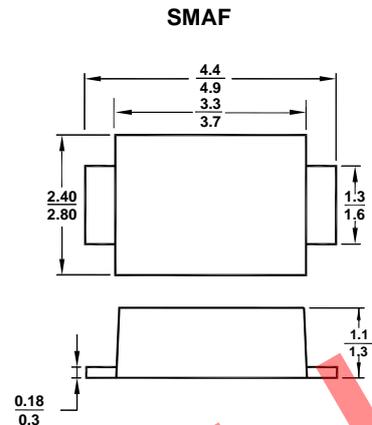
Forward Current - 1 A

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 molded plastic body
- **Terminals:** Solderable per MIL-STD-750, Method 2026



All Dimensions in mm

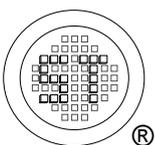
Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	SS12F	SS14F	SS16F	SS18F	SS110F	SS112F	SS115F	SS120F	Unit
	Marking	SS12	SS14	SS16	SS18	SS110	SS112	SS115	SS120	-
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 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	40				30				A
Maximum Instantaneous Forward Voltage at 1 A	V_F	0.55	0.7		0.85		0.9		V	
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	I_R	0.3				0.2		0.1		mA
		10				5		2		
Typical Junction Capacitance ¹⁾	C_j	110	80							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	115								°C/W
Operating Junction Temperature Range	T_j	- 55 to + 125								°C
Storage Temperature Range	T_{stg}	- 55 to + 150								°C

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

²⁾ P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

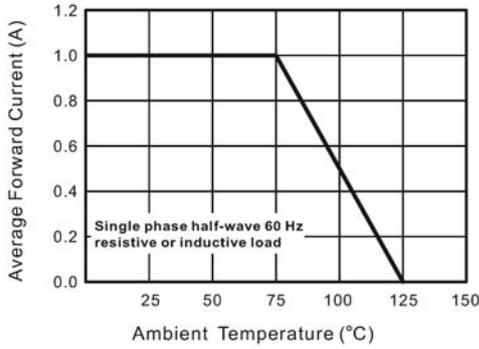


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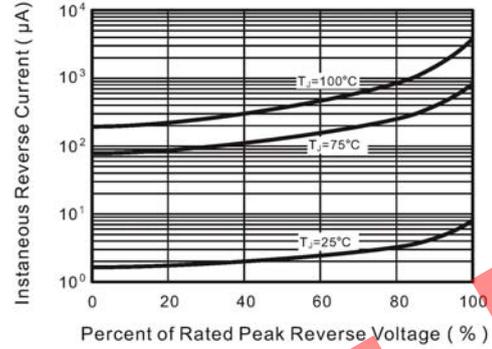


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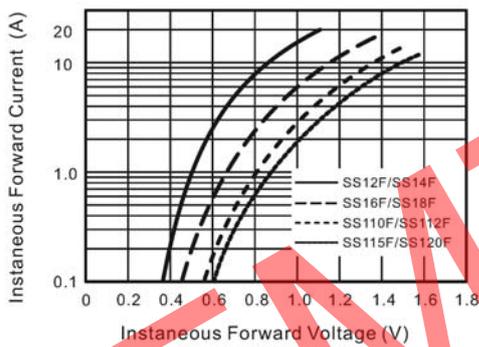
Forward Current Derating Curve



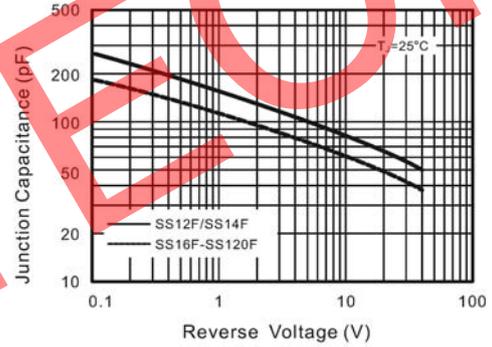
Typical Reverse Characteristics



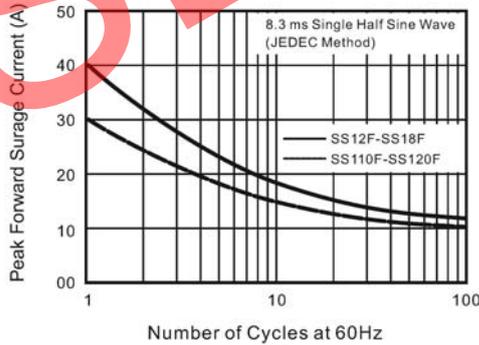
Typical Forward Characteristic



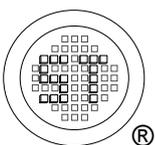
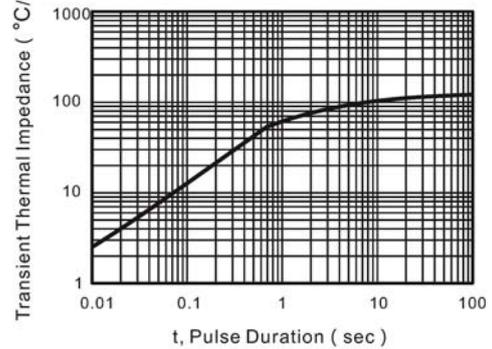
Typical Junction Capacitance



Maximum Non-Repetitive Peak Forward Surge Current



Typical Transient Thermal Impedance



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ISO/TS 16949 : 2009 Certificate No. 180713000
 ISO14001 : 2004 Certificate No. 7116
 ISO 9001 : 2008 Certificate No. 50719410
 BS-OHSAS 18001 : 2007 Certificate No. 7116
 IECQ QC 080000 Certificate No. PRC-18P16-1485