

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 0.00086oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View

Marking Code: SS22 — SS220
Simplified outline SMAF and symbol

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	SS22F	SS24F	SS26F	SS28F	SS210F	SS212F	SS215F	SS220F	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)}	2.0							A						
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	50				40				A					
Max Instantaneous Forward Voltage at 2 A	V _F	0.55		0.70		0.85		0.95		V					
Maximum DC Reverse Current T _a = 25°C at Rated DC Reverse Voltage T _a = 100°C	I _R	0.5 10			0.3 5										
Typical Junction Capacitance ¹⁾	C _j	220		80											
Operating Junction Temperature Range	T _j	-55 ~ +125								°C					
Storage Temperature Range	T _{stg}	-55 ~ +150								°C					

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

Fig.1 Forward Current Derating Curve

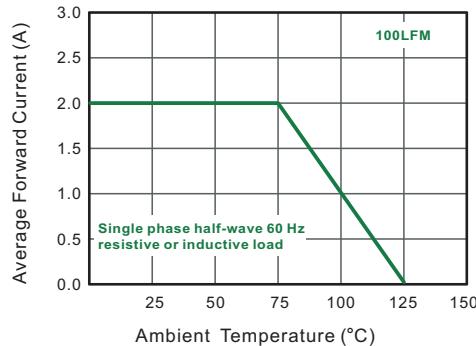


Fig.2 Typical Reverse Characteristics

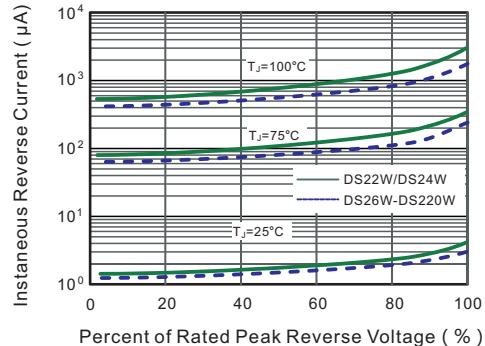


Fig.3 Typical Forward Characteristic

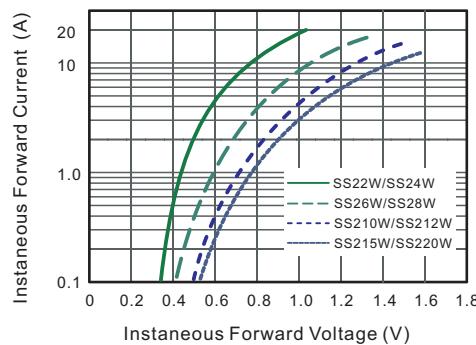


Fig.4 Typical Junction Capacitance

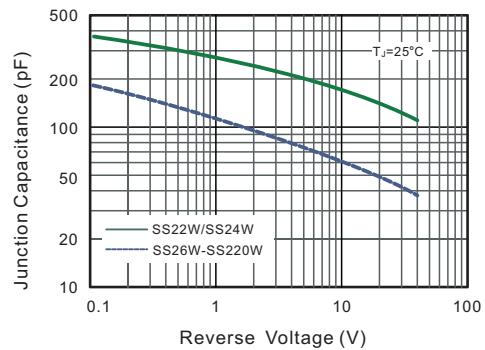
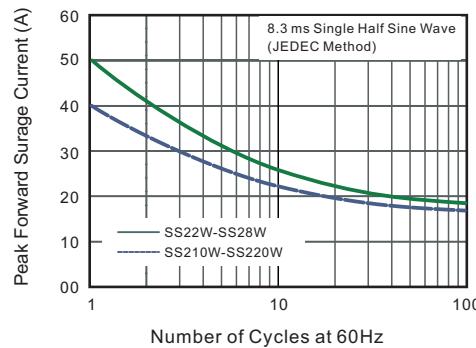


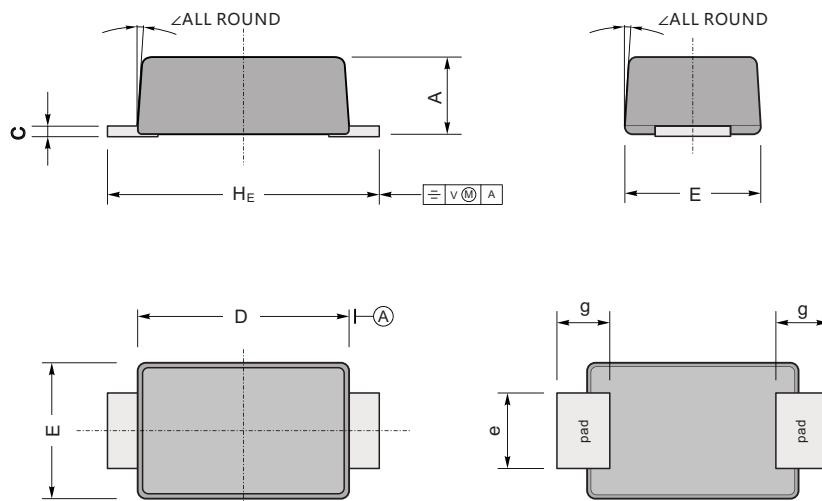
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

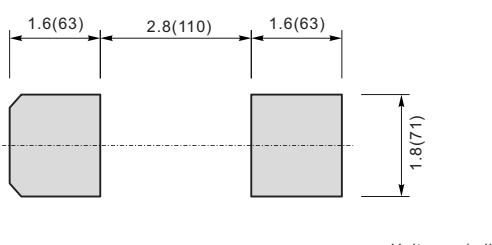
Plastic surface mounted package; 2 leads

SMAF



UNIT		A	C	D	E	e	g	H _E	\angle
mm	max	1.3	0.23	3.7	2.7	1.6	1.3	4.9	7°
	min	1.1	0.18	3.3	2.4	1.3	1.0	4.4	
mil	max	51	9.1	146	106	63	51	193	7°
	min	43	7.1	130	94	51	39	173	

The recommended mounting pad size



Marking

Type number	Marking code
SS22F	SS22
SS24F	SS24
SS26F	SS26
SS28F	SS28
SS210F	SS210
SS212F	SS212
SS215F	SS215
SS220F	SS220