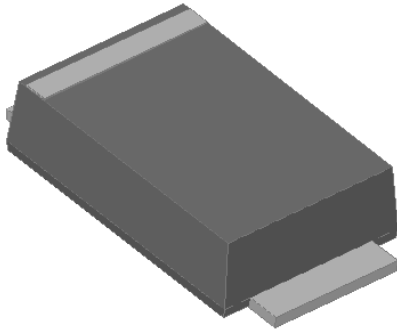


Surface Mount Schottky Rectifier

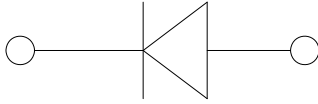


Features

- Guard ring for overvoltage protection
- Low power losses
- Extremely fast switching
- High forward surge capability
- High frequency operation
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Part no. with suffix "Q" means AEC-Q101 qualified

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, automotive and polarity protection applications.



Mechanical Data

- **Package:** SMAF
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

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	SS32F	SS34F	SS34AF	SS36F	SS38F	SS310F	SS312F	SS315F	SS320F	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	40	45	60	80	100	120	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	31.5	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	40	45	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	3.0									A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	80									A
Max Instantaneous Forward Voltage at 3 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 5				0.3 3				mA	
Typical Junction Capacitance ⁽¹⁾	C _j	250				180				pF	
Typical Thermal Resistance ⁽²⁾	R _{θJA}	70									°C/W
	R _{θJC}	18									
Operating Junction Temperature Range	T _j	-55 ~ +125									°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.

■ Characteristics(Typical)

Fig.1 Forward Current Derating Curve

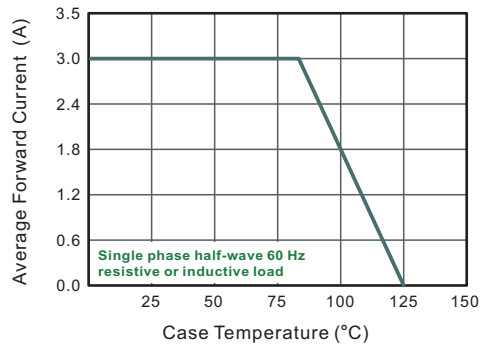


Fig.2 Typical Reverse Characteristics

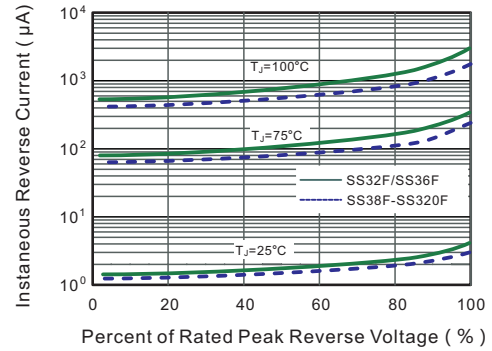


Fig.3 Typical Forward Characteristic

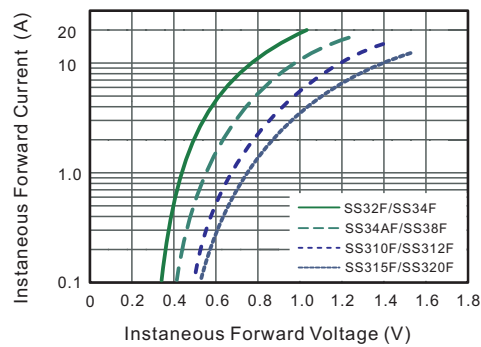


Fig.4 Typical Junction Capacitance

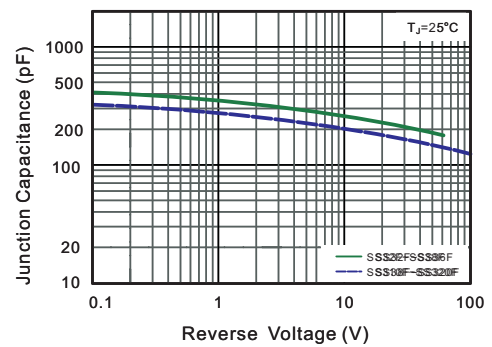


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

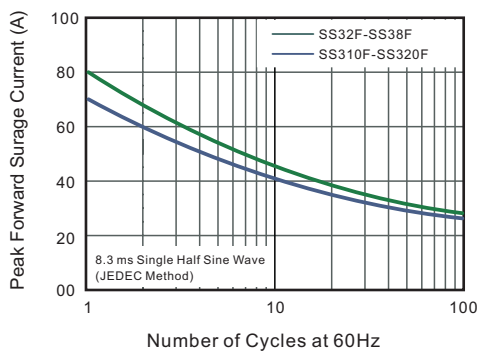
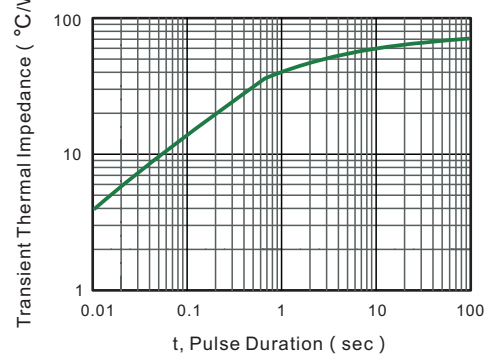


Fig.5- Typical Transient Thermal Impedance

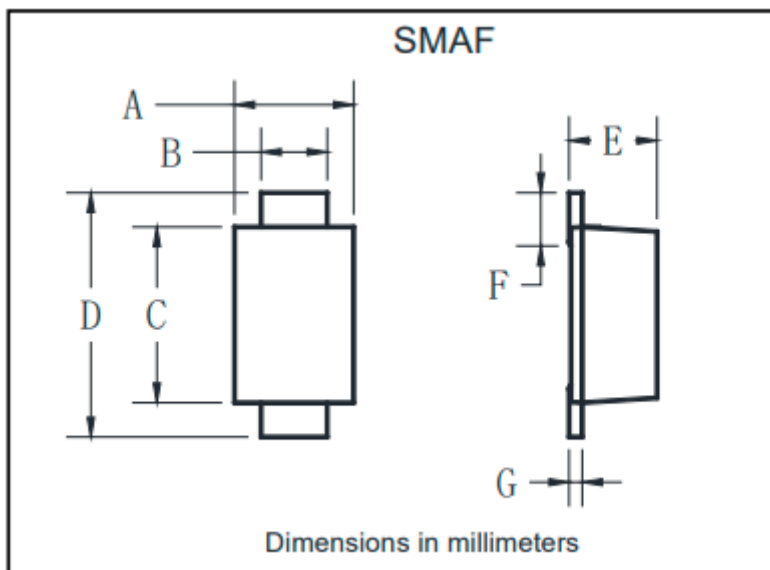


SS32F THRU SS320F

■ Ordering Information (Example)

P/N	PKG	QTY
SS32F-SS320F	SMAF	3000

■ Outline Dimensions



SMAF		
Dim	Min	Max
A	2.40	2.80
B	1.35	1.45
C	3.40	3.60
D	4.40	4.80
E	1.05	1.25
F	0.50	1.00
G	0.15	0.22