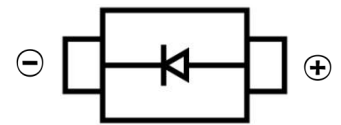


**SCHOTTKY BARRIER DIODE**
**FEATURES**

- Small Surface Mount device
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications


**SMAF**

**MECHANICAL DATA**

- Case: SMAF
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.027 grams (approximate)

**MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)**

Parameter	Symbol	SS32F	SS34F	SS36F	SS38F	SS310F	SS312F	SS315F	SS320F	Unit	
Repetitive peak reverse voltage	V <sub>RRM</sub>	20	40	60	80	100	120	150	200	V	
DC Reverse Voltage	V <sub>R</sub>	20	40	60	80	100	120	150	200	V	
RMS Reverse Voltage	V <sub>RMS</sub>	14	28	42	56	70	84	105	140	V	
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I <sub>FSM</sub>	80				70				A	
Mean rectifying current	I <sub>F</sub>	3.0									A
Thermal Resistance From Junction To Ambient	R <sub>θJA</sub>	40									°C/W
Junction Temperature	T <sub>J</sub>	125									°C
Storage Temperature	T <sub>STG</sub>	-55 ~+150									°C

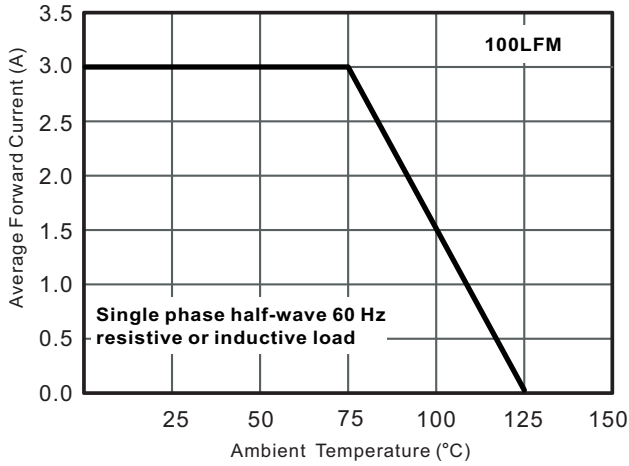
**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

Parameter	Symbol	SS32F	SS34F	SS36F	SS38F	SS310F	SS312F	SS315F	SS320F	Unit	Conditions
Forward voltage	V <sub>F</sub>	0.55	0.70		0.85		0.95			V	I <sub>F</sub> =3A
Reverse current T=25°C	I <sub>R</sub>	0.5			0.3					mA	V=V <sub>R</sub>
Reverse current T=100°C	I <sub>R</sub>	10			5					mA	
Junction capacitance	C <sub>J</sub>	250		160						pF	V <sub>R</sub> =4V, f=1MH

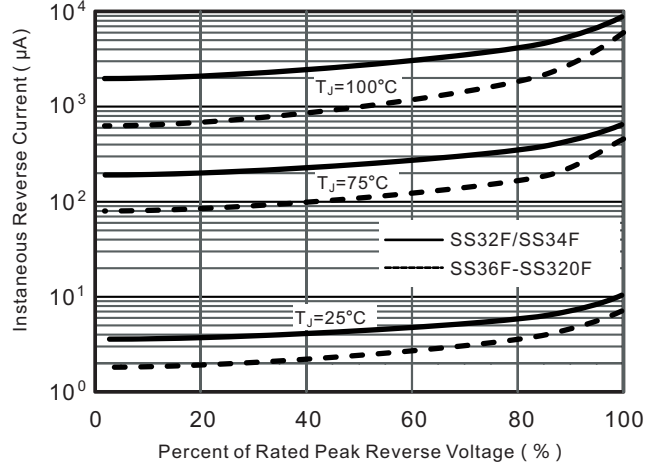
SCHOTTKY BARRIER DIODE

**Typical Characteristics**

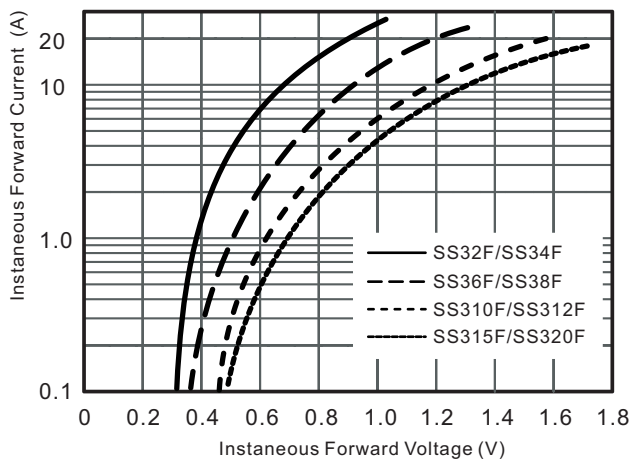
**Fig.1 Forward Current Derating Curve**



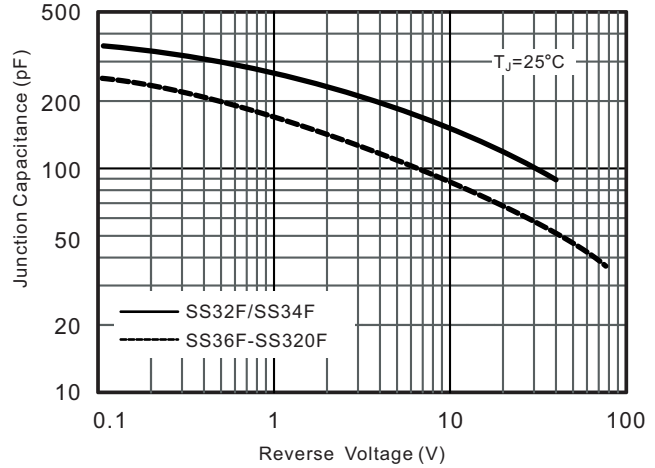
**Fig.2 Typical Reverse Characteristics**



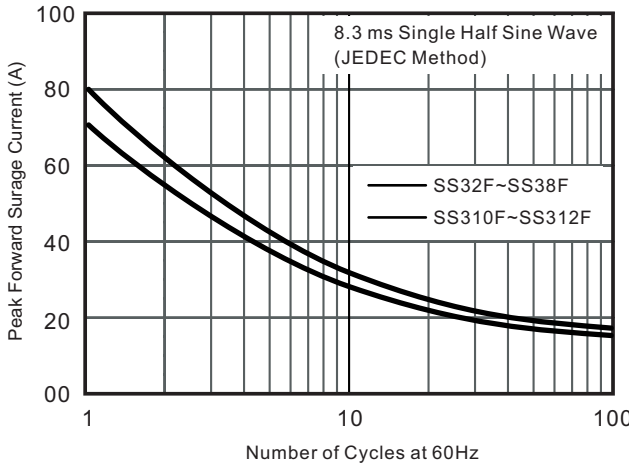
**Fig.3 Typical Forward Characteristic**



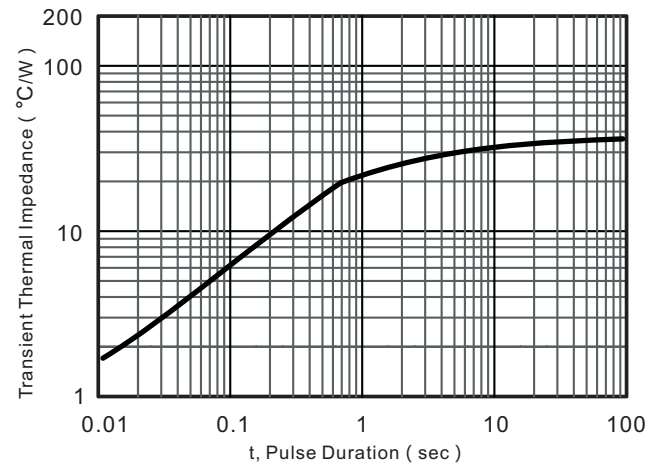
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**

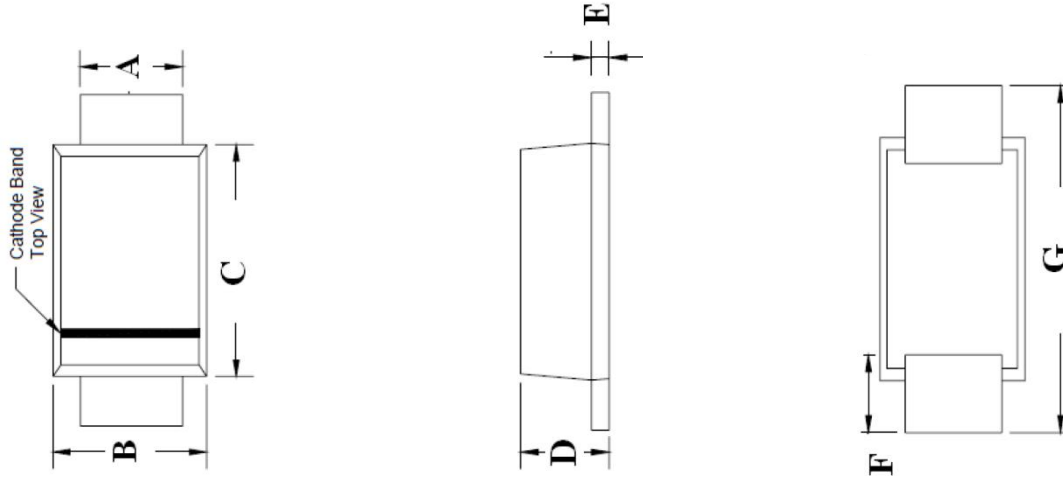


**Fig.6- Typical Transient Thermal Impedance**



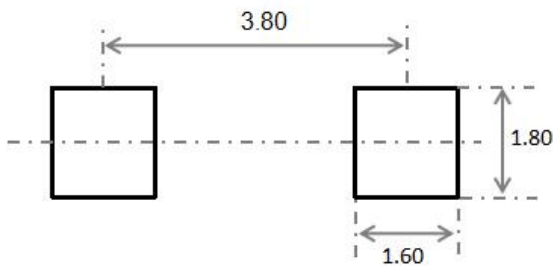
SCHOTTKY BARRIER DIODE

**SMAF Package Outline Dimensions**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.30	1.60	0.051	0.063
B	2.40	2.80	0.094	0.110
C	3.25	3.65	0.128	0.144
D	1.10	1.40	0.043	0.055
E	0.15	0.25	0.006	0.010
F	0.70	1.20	0.028	0.047
G	4.40	4.90	0.173	0.193

**SMAF Suggested Pad Layout**



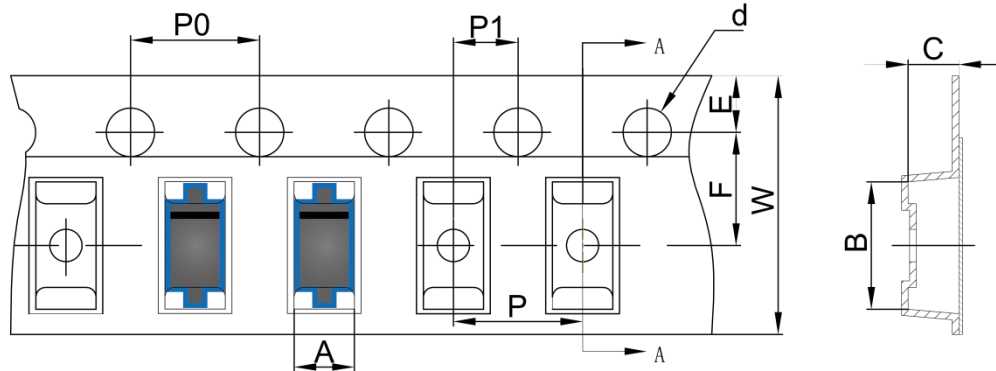
**Note:**

1. Controlling dimension: in millimeters
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

SCHOTTKY BARRIER DIODE

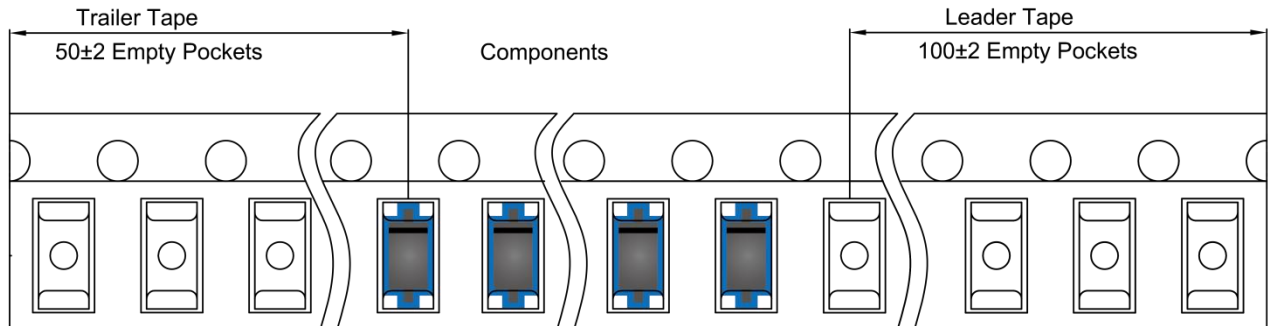
**SMAF Tape and Reel**

**SMAF Embossed Carrier Tape**

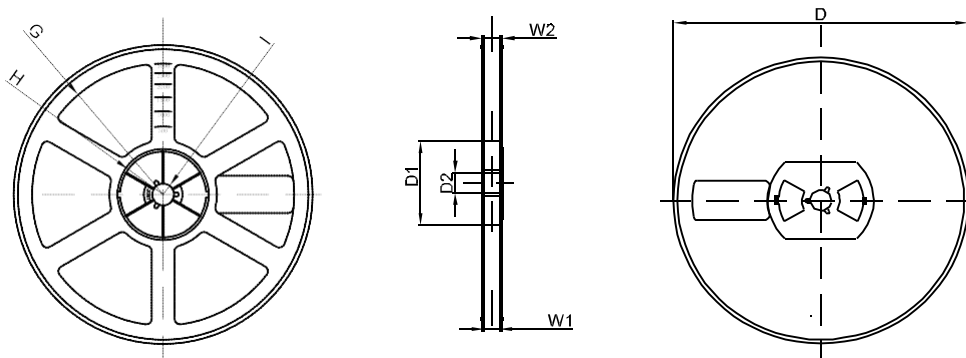


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMAF	2.79	5.35	1.48	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

**SMAF Tape Leader and Trailer**



**SMAF Reel**



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1