

SS14F~SS120F

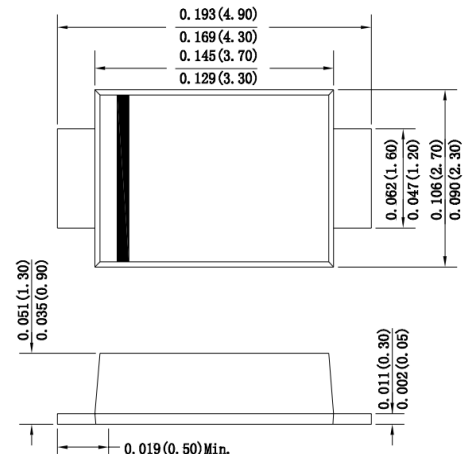
Rev.1.0

1.0Amp Surface Mounted Schottky Barrier Rectifiers

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
250°C/10 seconds at terminals

SMAF



Dimensions in inches and (millimeters)

Mechanical Data

Case : Molded plastic body
 Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
 Polarity : Polarity symbol marking on body
 Mounting Position : Any
 Weight : 0.0014 ounce, 0.038 grams

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 current derate by 20%.

Parameter	SYMBOLS	SS14F	SS145F	SS16F	SS18F	SS110F	SS115F	SS120F	UNITS	
Maximum repetitive peak reverse voltage	V_{RRM}	40	45	60	80	100	150	200	V	
Maximum RMS voltage	V_{RMS}	28	31.5	42	56	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	40	45	60	80	100	150	200	V	
Maximum average forward rectified current at $T_L=100^\circ C$	$I_{(AV)}$	1.0							A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30.0							A	
Maximum instantaneous forward voltage at 1.0A	V_F	0.55	0.70	0.85	0.95				V	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ C$ $T_A=125^\circ C$	I_R	0.5 50			0.05 10			mA		
Typical thermal resistance	R_{QJA}	70.0							$^\circ C/W$	
Operating junction temperature range	T_J	-55 to +125			-55 to +150				$^\circ C$	
Storage temperature range	T_{STG}	-55 to +150								$^\circ C$

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

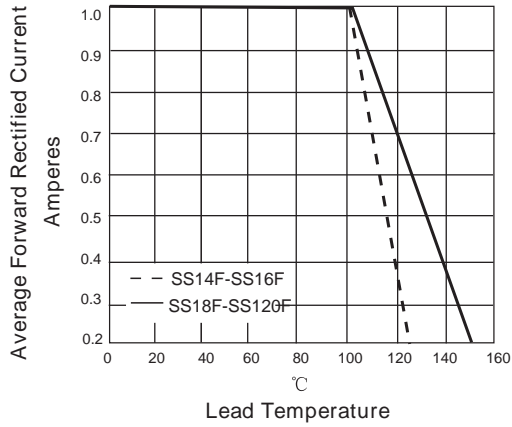


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

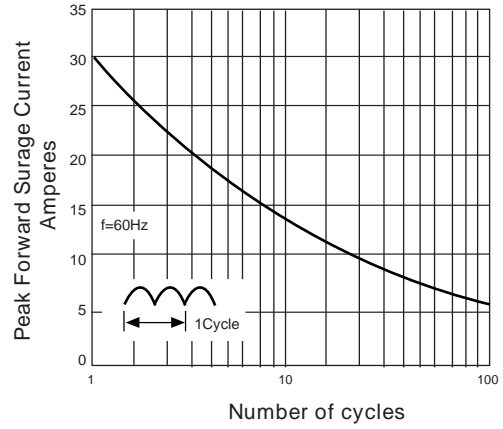


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

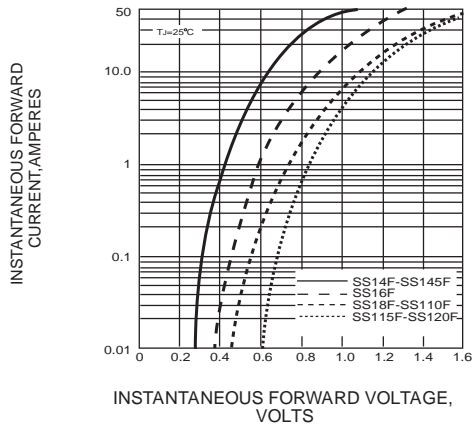
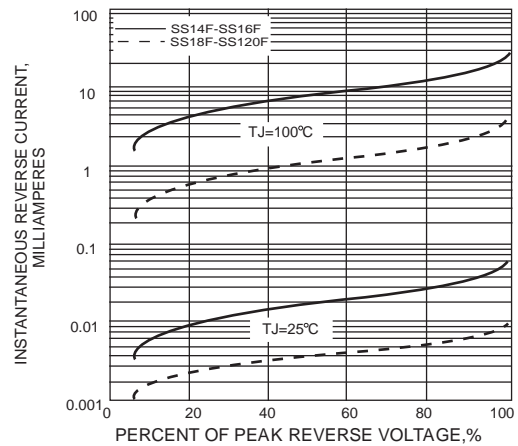
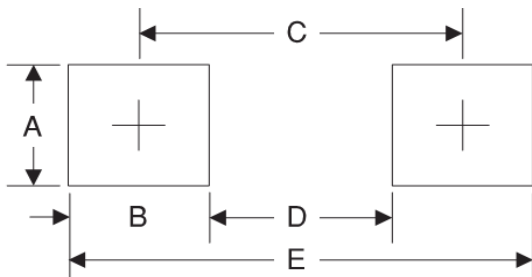


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.90	0.154
D	2.00	0.078
E	5.10	0.200

Suggested Soldering Temperature Profile

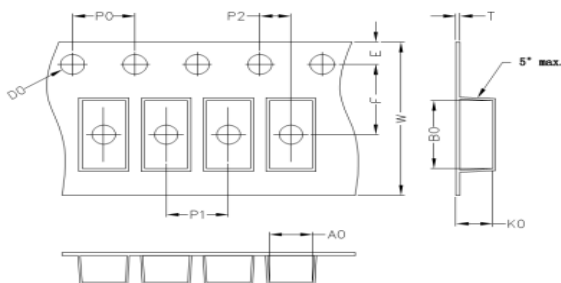


Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Carrier Dimension(mm)



A0	B0	K0	D0	E	F
2.83	4.75	1.42	1.55	1.75	5.50
P0	P1	P2	T	W	Tolerance
4.0	4.0	2.0	0.25	12	0.1

Package Specifications

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
SMAF	7'	178	3	180	12	380*200*200	120
	11'	278	7.5	285	15	355*310*310	120