

■ FEATURES

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low VF
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

■ TYPICAL APPLICATIONS

For use in low voltage high frequency inverters, Freewheeling, DC/DC converters, 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

■ MAXIMUM RATINGS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SL24F	SL245F	SL26F	SL210F
Device marking code			SL24F	SL245F	SL26F	SL210F
Repetitive peak reverse voltage	VRRM	V	40	45	60	100
Average rectified output current @60Hz sine wave, Resistance load, T _a (FIG.1)	I _O	A	2.0			
Surge(non-repetitive)forward current @60HZ Half-sine wave, 1 cycle, T _j =25°C	I _{FSM}	A	50			
Storage temperature	T _{stg}	°C	-55 ~+150			
Junction temperature	T _j	°C	-55 ~+150			

■ ELECTRICAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SL24F	SL245F	SL26F	SL210F
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =2.0A	0.47		0.55	0.75
Maximum DC reverse current at rated DC blocking voltage per diode @ V _{RM} =VRRM	I _R	mA	T _a =25°C	0.5			0.1
			T _a =100°C	10			5

■ THERMAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SL24F	SL245F	SL26F	SL210F
Thermal Resistance	R _{θJ-A}	°C/W	65 ¹⁾			
	R _{θJ-L}		20 ¹⁾			

Note: (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SL24F-SL210F	F1	Approximate 0.034	3000	24000	96000	7" reel
SL24F-SL210F	F2	Approximate 0.034	10000	20000	160000	13" reel
SL24F-SL210F	F3	Approximate 0.034	10000	20000	120000	13" reel
SL24F-SL210F	F4	Approximate 0.034	7500	15000	120000	13" reel

■ **CHARACTERISTICS (TYPICAL)**

FIG1: Io-TL Curve

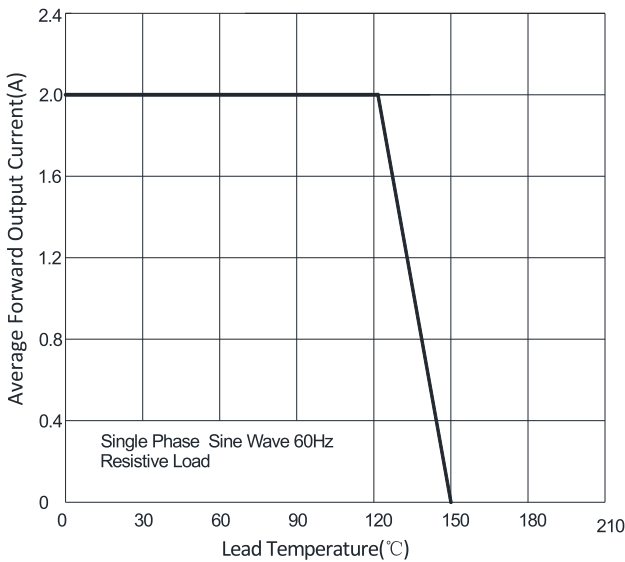


FIG2: Surge Forward Current Capability

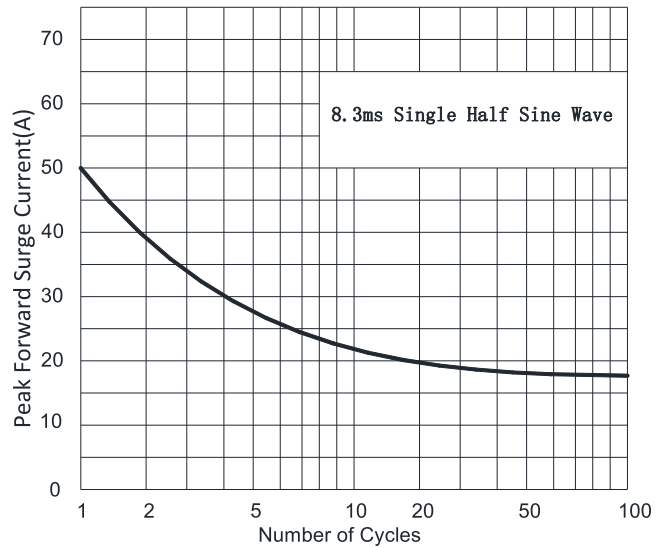


FIG3: Forward Voltage

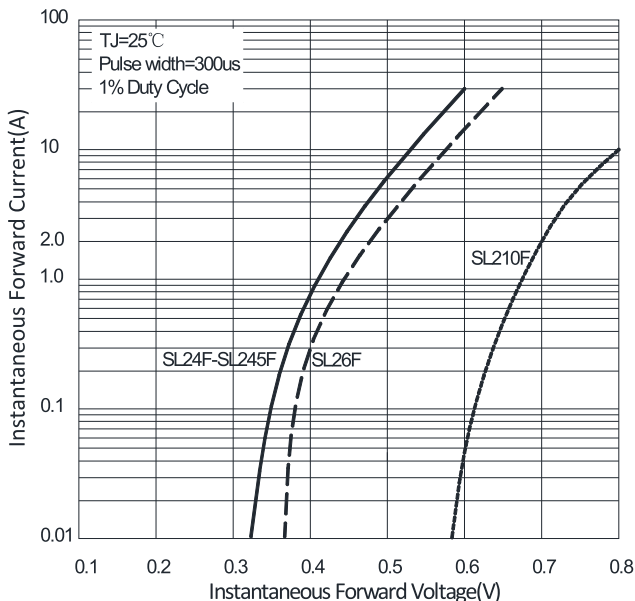
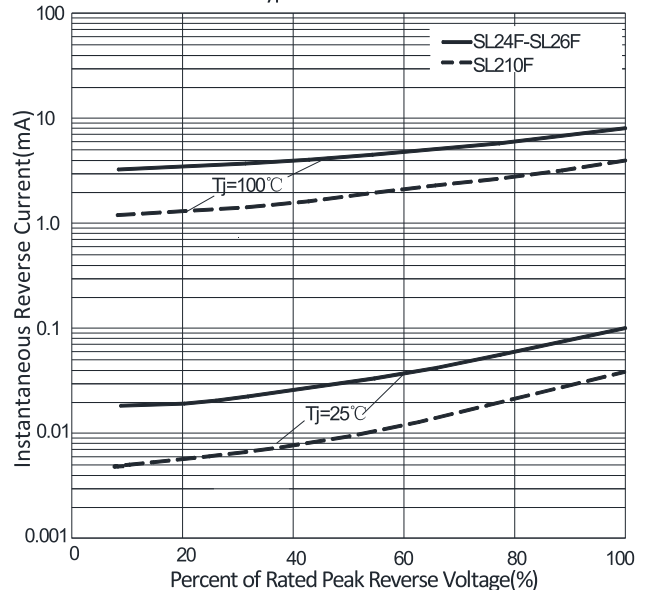
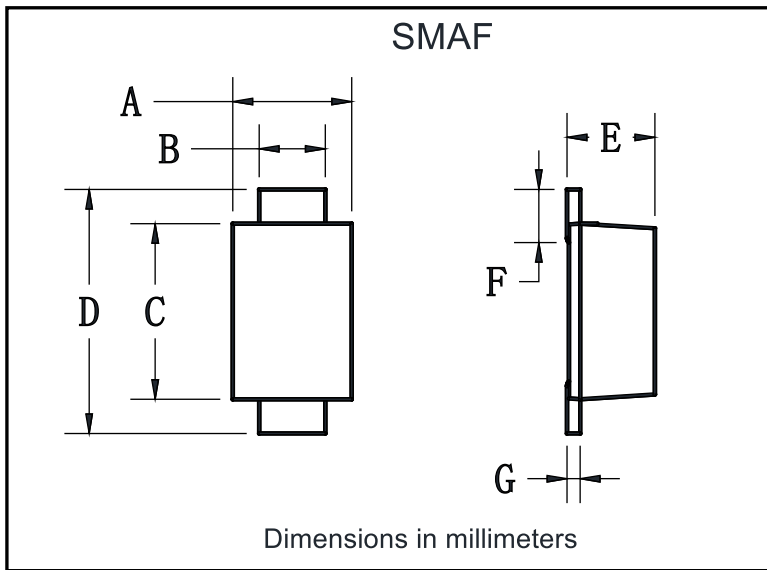


FIG4: Typical Reverse Characteristics

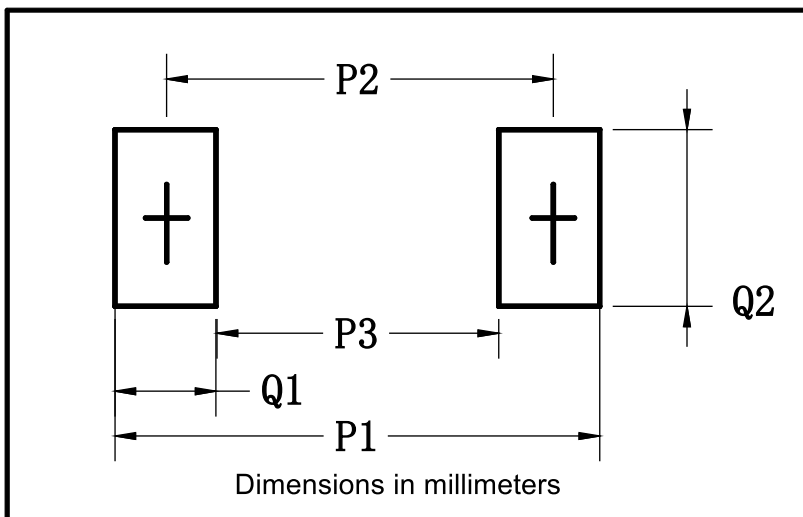


■ **OUTLINE DIMENSIONS**



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

■ **SUGGESTED PAD LAYOUT**



SMAF	
Dim	Millimeters
P1	6.50
P2	4.00
P3	1.50
Q1	2.50
Q2	1.70