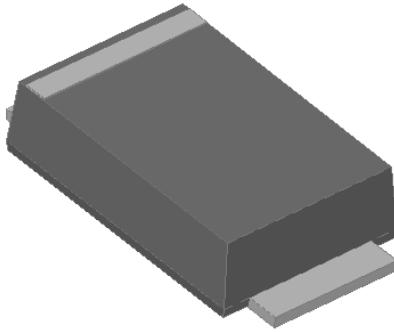


Surface Mount Schottky Rectifier

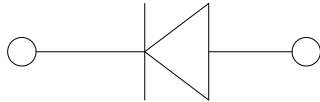


Features

- 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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SL54F	SL545F	SL56F	SL510F
Device marking code			SL54F	SL545F	SL56F	SL510F
Repetitive peak reverse voltage	VRRM	V	40	45	60	100
Average rectified output current @60Hz sine wave, Resistance load, Ta (FIG.1)	IO	A	5.0			
Surge(non-repetitive)forward current @60HZ Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	100			
Storage temperature	Tstg	°C	-55 ~+150			
Junction temperature	Tj	°C	-55 ~+150			

■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SL54F	SL545F	SL56F	SL510F
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=5.0A	0.45		0.50	0.65
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IR	mA	Ta=25°C	0.5			0.1
			Ta=100°C	10			9



SL54F THRU SL510F

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SL54F	SL545F	SL56F	SL510F
Thermal Resistance	R _{θJ-A}	°C/W	65 ¹⁾			
	R _{θJ-L} ¹⁾		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

■ Characteristics (Typical)

FIG1: I_o-T_L Curve

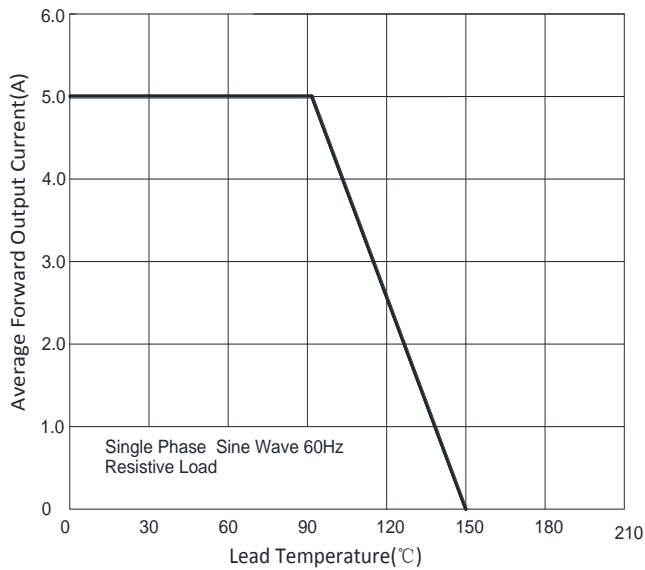


FIG2: Surge Forward Current Capability

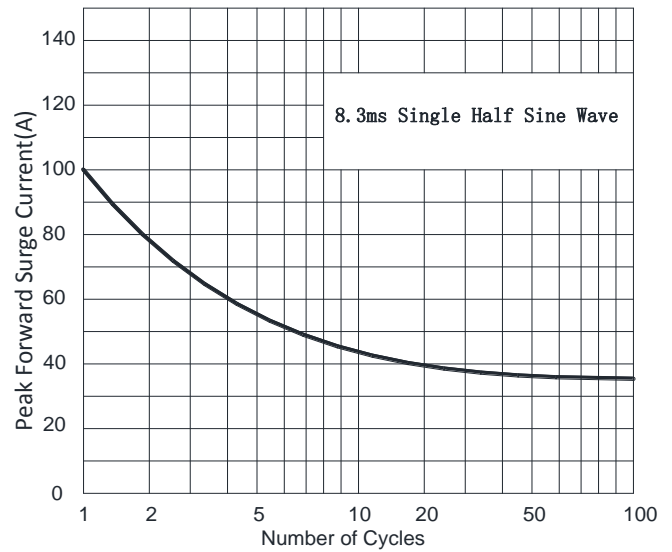


FIG3: Forward Voltage

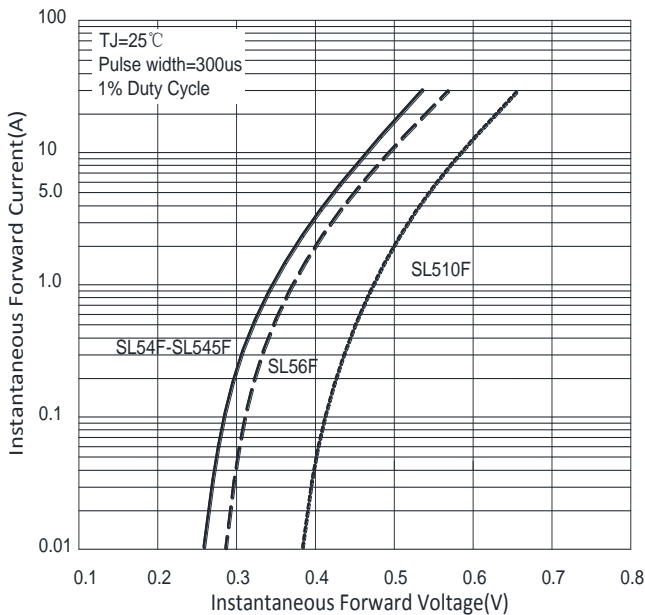
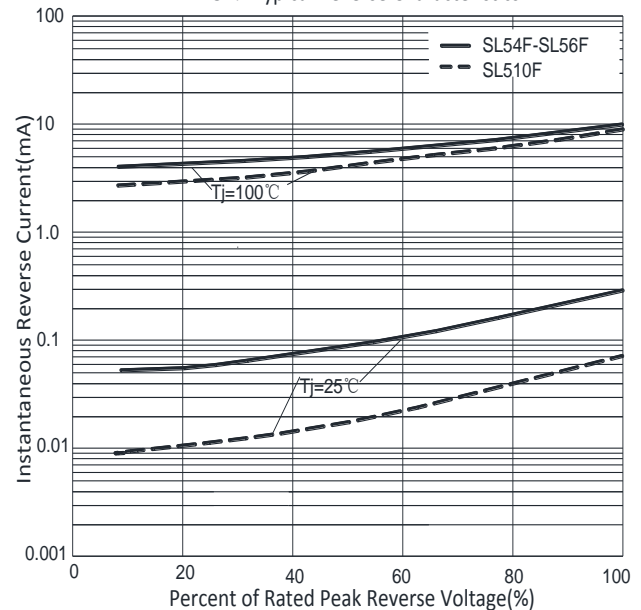


FIG4: Typical Reverse Characteristics



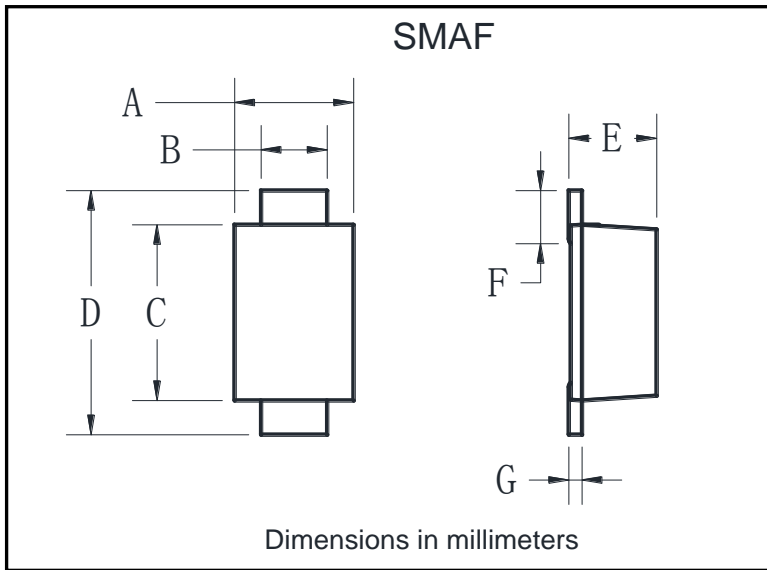


SL54F THRU SL510F

■ Ordering Information (Example)

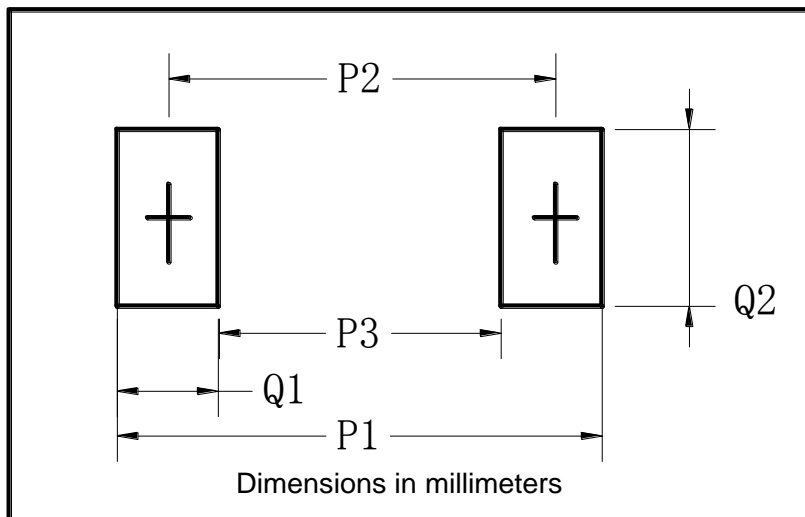
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SL54F-SL510F	F1	Approximate 0.034	3000	12000	96000	7" reel
SL54F-SL510F	F2	Approximate 0.034	10000	20000	160000	13" reel
SL54F-SL510F	F3	Approximate 0.034	10000	20000	120000	13" reel
SL54F-SL510F	F4	Approximate 0.034	7500	15000	120000	13" reel

■ 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



SL54F THRU SL510F

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.