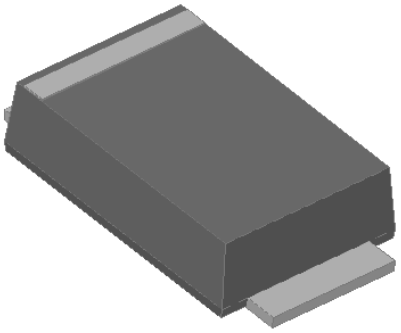
Surface Mount Schottky Rectifier

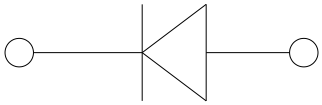


Features

- 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℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	SL54F	SL545F	SL56F	SL510F
Device marking code			SL54F	SL545F	SL56F	SL510F
Repetitive peak reverse voltage	V_{RRM}	V	40	45	60	100
Average rectified output current @60Hz sine wave, Resistance load, TL (FIG.1)	IO	A	5.0			
Surge(non-repetitive)forward current @60HZ Half-sine wave, 1 cycle, Tj=25℃	I_{FSM}	A	100			
Storage temperature	T_{stg}	℃	-55 ~+150			
Junction temperature	T_j	℃	-55 ~+150			

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SL54F	SL545F	SL56F	SL510F
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=5.0A	0.45		0.50	0.65
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	I_R	mA	T_a=25℃	0.5			0.1
			T_a=100℃	50			20

Note1:Pulse test:300uS pulse widh,1% duty cycle

Note2:Pulse test:pulse widh 40mS

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	SL54F	SL545F	SL56F	SL510F
Thermal Resistance	RθJ-A	℃/W	65[1)]			
	RθJ-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：Io-TL Curve

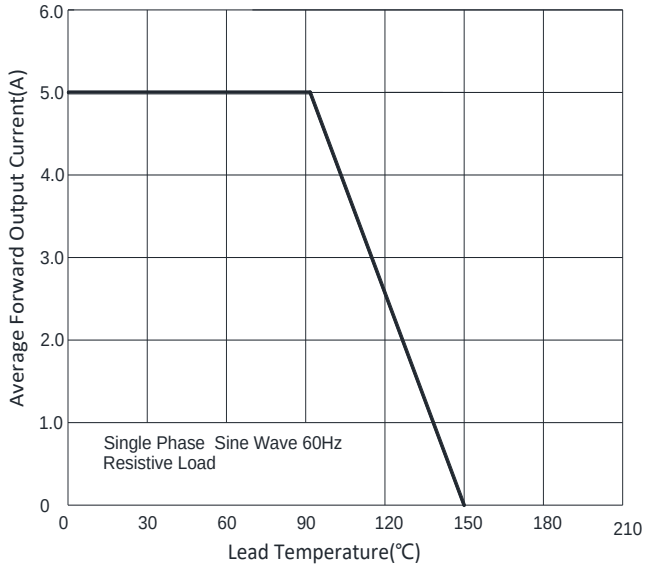


FIG2：Surge Forward Current Capability

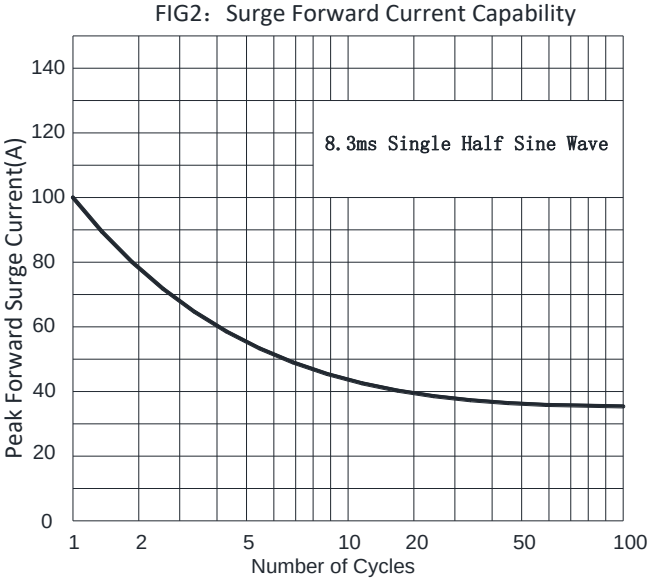


FIG3：Forward Voltage

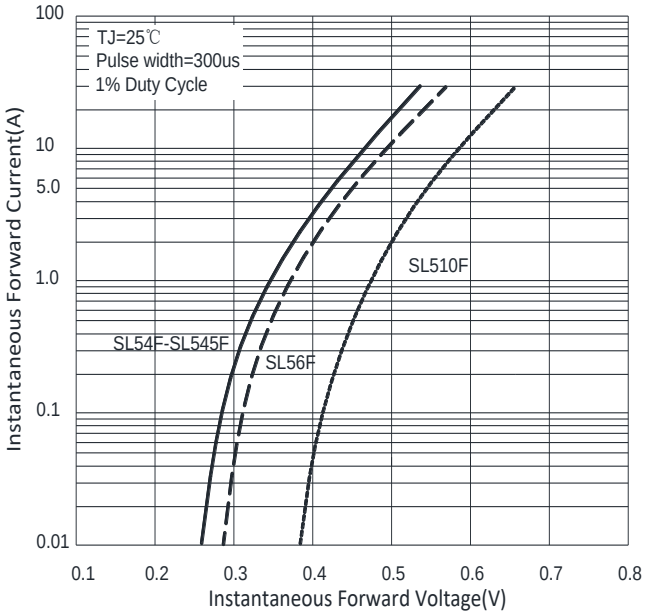
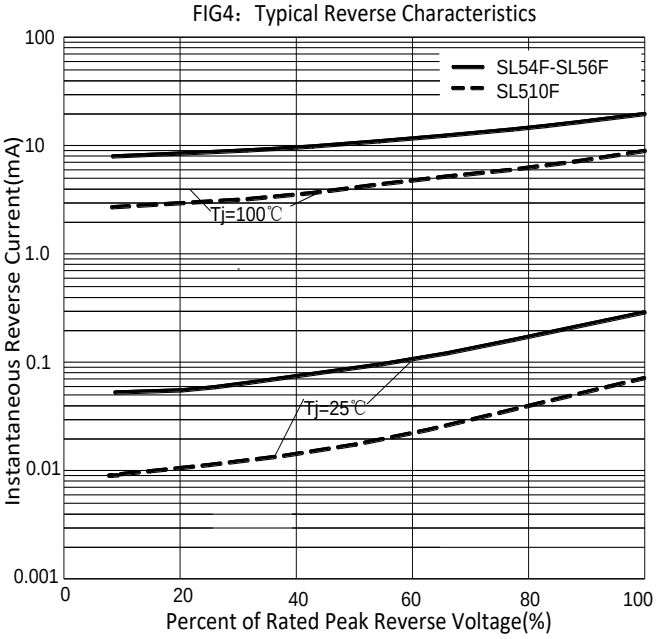


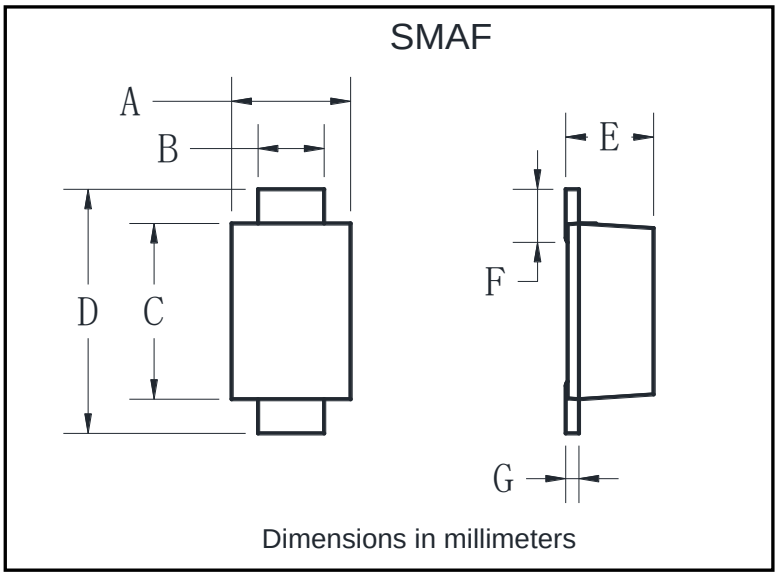
FIG4：Typical Reverse Characteristics



■Ordering Information (Example)

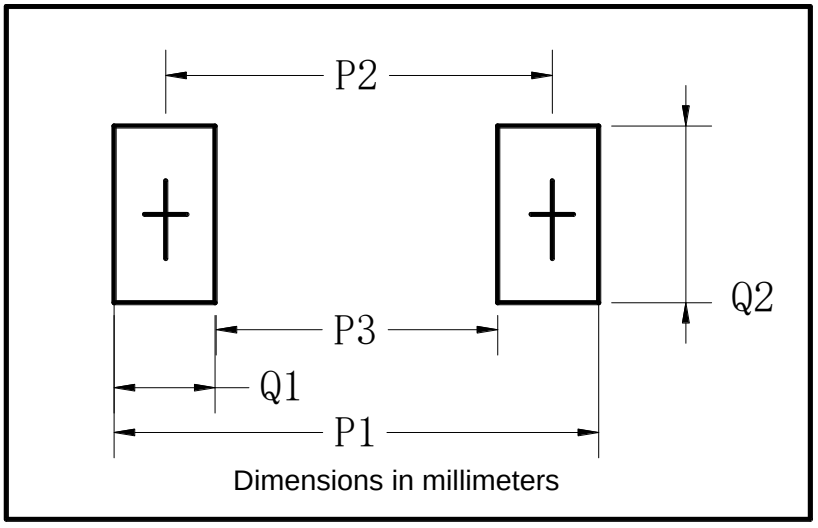
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SL54F-SL510F	F1	Approximate 0.034	3000	12000	96000	7” reel
SL54F-SL510F	F2	Approximate 0.034	10000	20000	160000	13” reel
SL54F-SL510F	F3	Approximate 0.034	10000	20000	120000	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	0.25

■ Suggested pad layout



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

Notice

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