

Surface Mount Schottky Rectifier

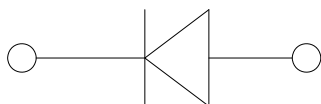


Features

- 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, -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	SL34F	SL345F	SL35F	SL36F	SL310F
Device marking code			SL34F	SL345F	SL35F	SL36F	SL310F
Repetitive peak reverse voltage	V _{RRM}	V	40	45	50	60	100
Average rectified output current @60Hz sine wave, Resistance load, TL (FIG.1)	I _O	A	3.0				
Surge(non-repetitive)forward current @60Hz Half-sine wave, 1 cycle, T _j =25°C	I _{FSM}	A	80				
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	SL34F	SL345F	SL35F	SL36F	SL310F
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =3.0A	0.45		0.50		0.60
Maximum DC reverse current at rated DC blocking voltage per diode @V _{RM} =V _{RRM}	I _R	mA	T _a =25°C	0.5				0.1
			T _a =100°C	10				5

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

Note2:Pulse test:pulse width 40mS

SL34F THRU SL310F

■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SL34F	SL345F	SL35F	SL36F	SL310F
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	65 ⁽¹⁾				
	$R_{\theta J-L}$		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

■ Characteristics (Typical)

FIG1: I_o - T_L Curve

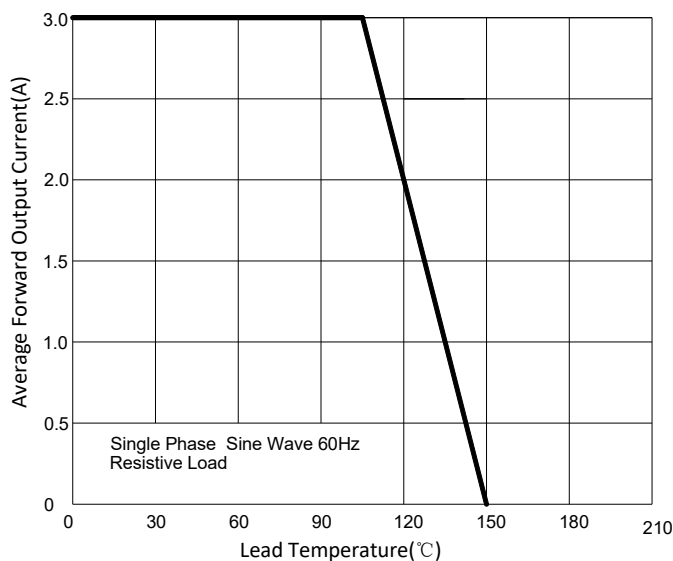


FIG2: Surge Forward Current Capability

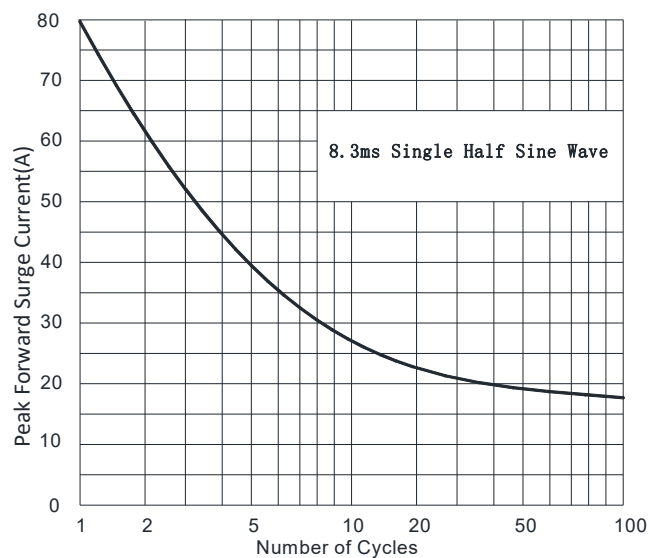


FIG3: Forward Voltage

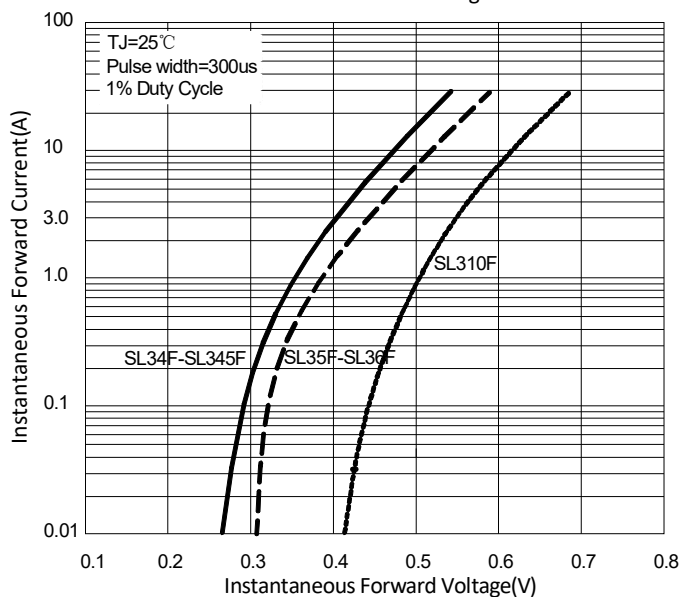
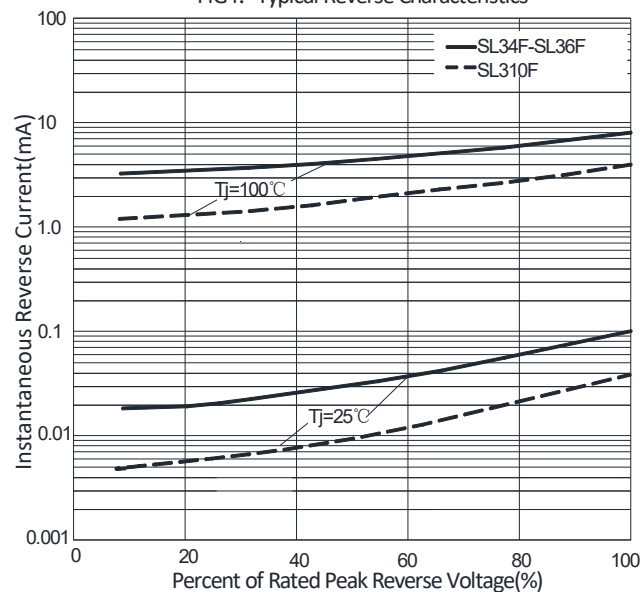


FIG4: Typical Reverse Characteristics

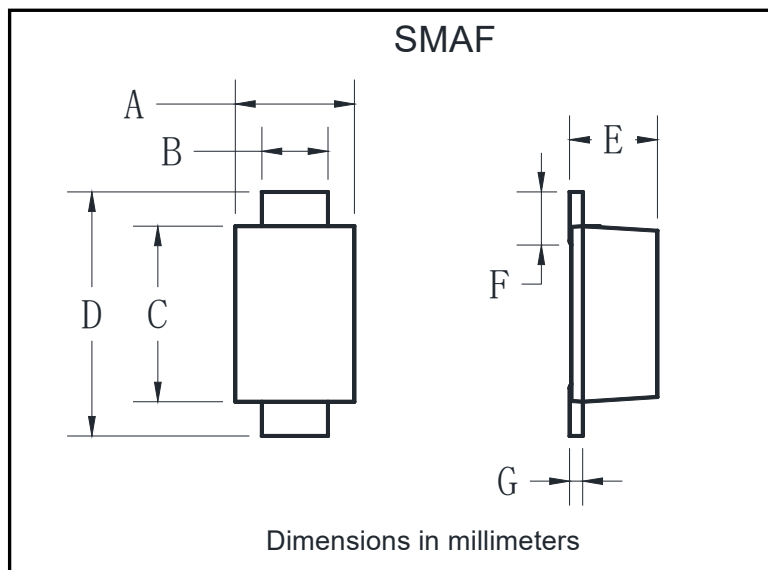


SL34F THRU SL310F

■ Ordering Information (Example)

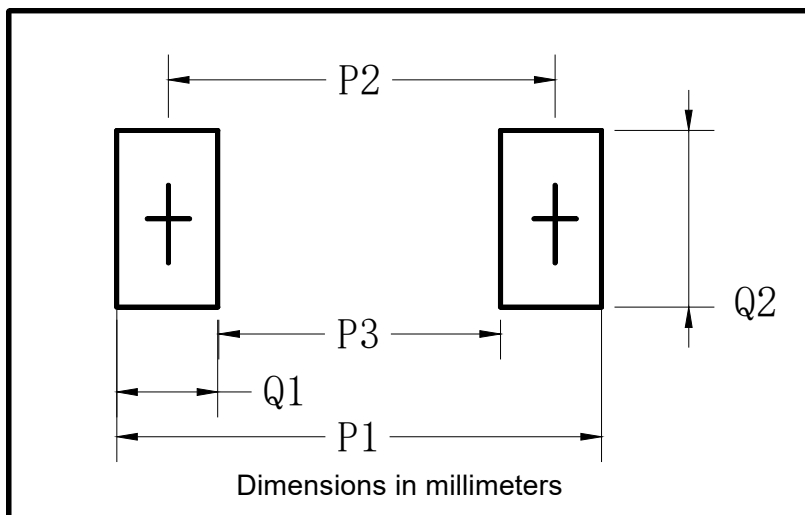
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SL34F-SL310F	F1	Approximate 0.034	3000	24000	96000	7" reel
SL34F-SL310F	F2	Approximate 0.034	10000	20000	160000	13" reel
SL34F-SL310F	F3	Approximate 0.034	10000	20000	120000	13" reel
SL34F-SL310F	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

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