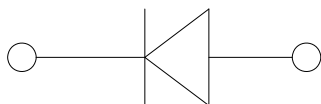


Surface Mount Schottky Rectifier



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:** DO-214AA (SMB)
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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SSL54B	SSL545B	SSL56B	SSL510B
Device marking code			SSL54B	SSL545B	SSL56B	SSL510B
Repetitive peak reverse voltage	V_{RRM}	V	40	45	60	100
Maximum DC blocking Voltage	V_{RMS}	V	28	32	42	70
Average rectified output current @60Hz sine wave, resistance load, TL (FIG.1)	I_O	A	5.0			
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Ta=25°C	I_{FSM}	A	100			
Storage temperature	T_{stg}	°C	-55 ~+150			
Junction temperature	T_j	°C	-55 ~+150			

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SSL54B	SSL545B	SSL56B	SSL510B
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=5.0A$	0.45		0.50	0.70
Maximum DC reverse current at rated DC blocking voltage per diode @ $V_{RM}=V_{RRM}$	I_{RRM}	mA	Ta=25°C	0.5			0.1
			Ta=100°C	50			20
Typical junction capacitance	C_j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	300		260	510

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

Note2:Pulse test:pulse width 40mS

SSL54B THRU SSL510B

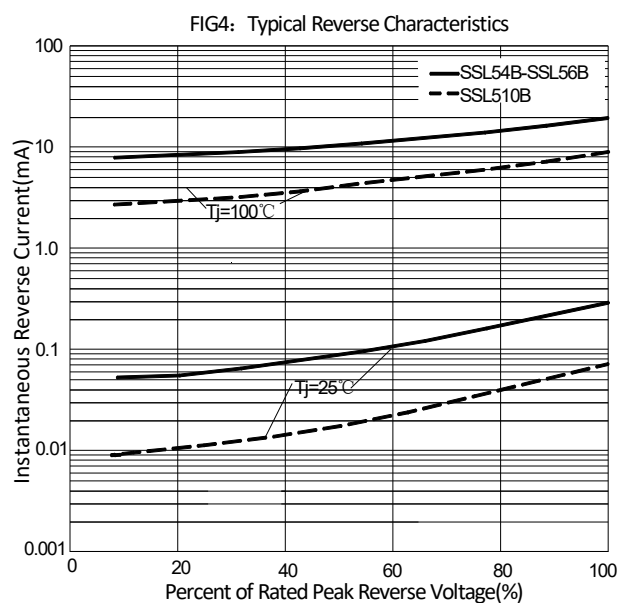
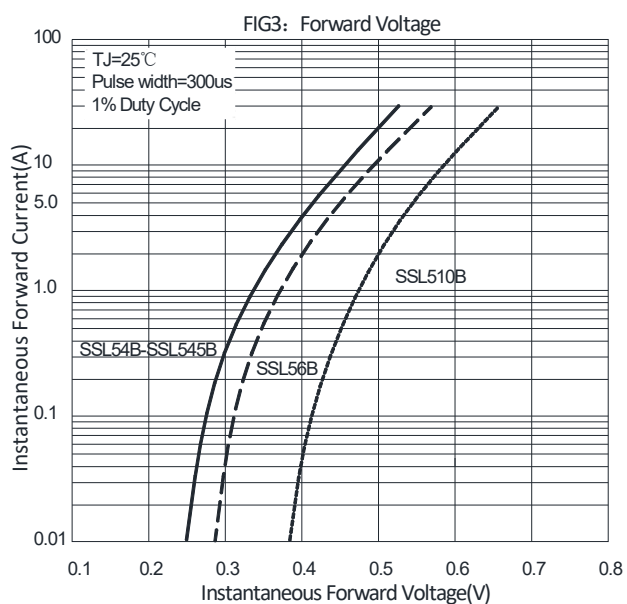
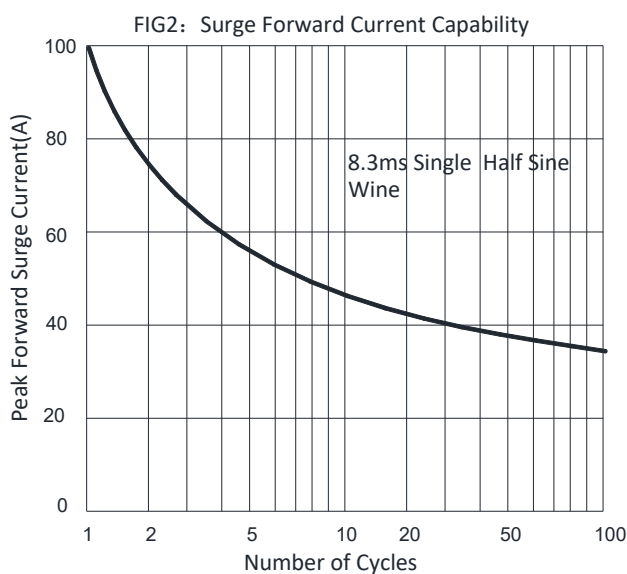
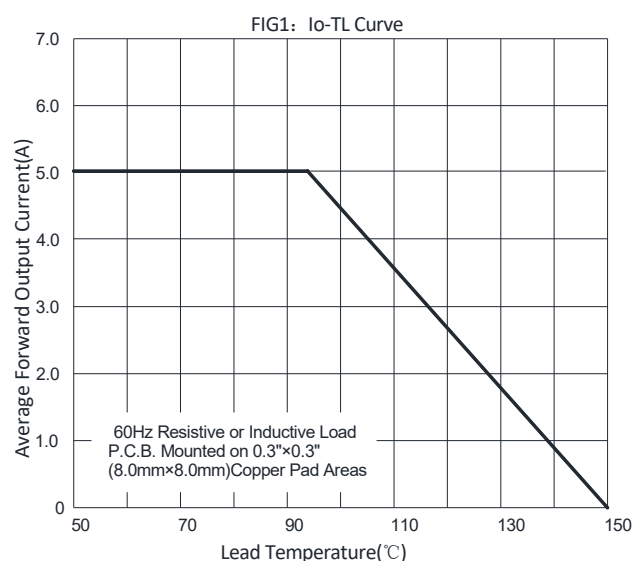
■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SSL54B	SSL545B	SSL56B	SSL510B
Thermal resistance	R _{θJ-A}	°C/W	65 ¹⁾			
	R _{θJ-L}		16 ¹⁾			
	R _{θJ-C}		15 ¹⁾			

Note:

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas

■ Characteristics(Typical)

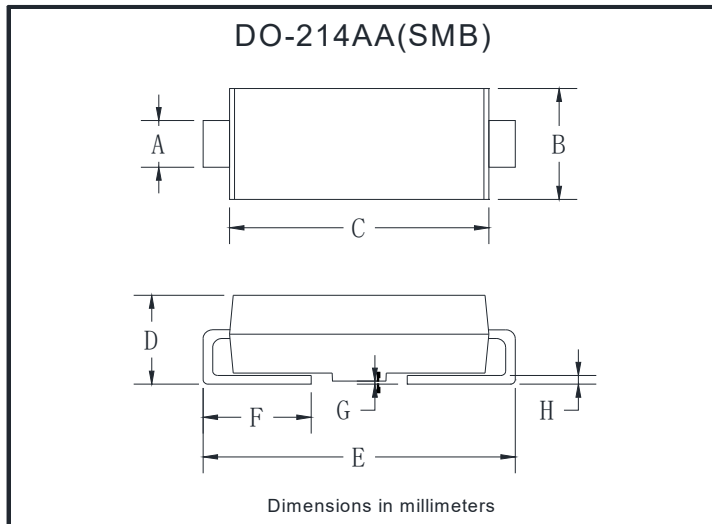


SSL54B THRU SSL510B

■ Ordering Information (Example)

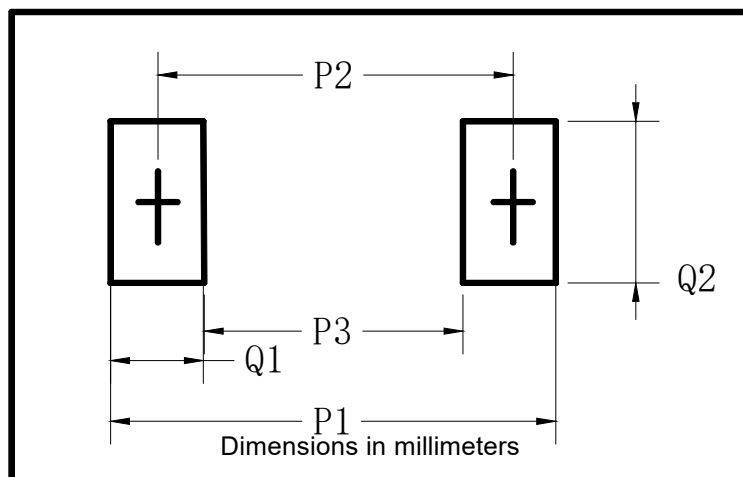
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SSL54B-SSL510B	F1	Approximate 0.096	3000	/	48000	13" reel
SSL54B-SSL510B	F2	Approximate 0.096	750	3000	24000	7" reel
SSL54B-SSL510B	F3	Approximate 0.096	500	2000	16000	7" reel

■ Outline Dimensions



DO-214AA(SMB)		
Dim	Min	Max
A	1.85	2.15
B	3.30	3.94
C	4.05	4.75
D	1.99	2.61
E	5.21	5.59
F	0.90	1.41
G	0.05	0.20
H	0.15	0.31

■ Suggested pad layout



DO-214AA(SMB)	
Dim	Millimeters
P1	6.8
P2	4.3
P3	1.8
Q1	2.5
Q2	2.3

Disclaimer

The information presented in this document is for reference only. Shanghai Sunco Electronics 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), Russiansunco 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.russiansunco.com](http://www.russiansunco.com) , or consult your nearest Russiansunco's sales office for further assistance.