


<p><u>SMB</u></p> 	<p>Features</p> <ul style="list-style-type: none"> Low forward voltage drop High current capability Moisture sensitivity: level 1, per J-STD-020 AEC-Q101 qualified High temperature soldering guaranteed: 260°C/10 seconds Halogen-free according to IEC 61249-2-21 definition 												
<p>Primary characteristics</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">$I_{F(AV)}$</td><td style="text-align: center;">2A</td></tr> <tr><td style="text-align: center;">V_{RRM}</td><td style="text-align: center;">20V to 40V</td></tr> <tr><td style="text-align: center;">I_{FSM}</td><td style="text-align: center;">45A</td></tr> <tr><td style="text-align: center;">I_{RM}</td><td style="text-align: center;">0.2mA</td></tr> <tr><td style="text-align: center;">V_{FM} at $I_F=2A$</td><td style="text-align: center;">0.42V</td></tr> <tr><td style="text-align: center;">T_J max.</td><td style="text-align: center;">150 °C</td></tr> </table>	$I_{F(AV)}$	2A	V_{RRM}	20V to 40V	I_{FSM}	45A	I_{RM}	0.2mA	V_{FM} at $I_F=2A$	0.42V	T_J max.	150 °C	<p>Applications</p> <p>For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications</p>
$I_{F(AV)}$	2A												
V_{RRM}	20V to 40V												
I_{FSM}	45A												
I_{RM}	0.2mA												
V_{FM} at $I_F=2A$	0.42V												
T_J max.	150 °C												
	<p>Mechanical data</p> <ul style="list-style-type: none"> SMB Epoxy meets UL 94 V-0 flammability rating Terminals: Tin plated leads. Polarity: As marked. 												
<p>Maximum rating (Ta=25°C unless otherwise noted)</p>													
Parameter	Sym	SMB			Unit								
		SL22	SL23	SL24									
Max. repetitive peak reverse voltage	V_{RRM}	20	30	40	V								
Max. RMS reverse voltage	V_{RMS}	14	21	28	V								
Max. DC blocking voltage	V_{DC}	20	30	40	V								
Max. average forward current	$I_{F(AV)}$	2			A								
Non-repetitive peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	45			A								
Max. instantaneous forward voltage drop per diode	V_{FM}	0.42			V								
Max. instantaneous reverse current at rated DC blocking voltage	Ta=25 °C	0.2			mA								
	Ta=125 °C	20											
Operating junction temperature	T_J	-55 ~ +150			°C								
Storage temperature	T_{STG}	-55 ~ +150			°C								
Typical thermal resistance (Note1)	$R_{\theta J-T}$	22			°C/W								
	$R_{\theta J-A}$	72											

Notes:

1 The thermal resistance from junction to ambient and terminal.



SL22 thru SL24. Surface Mounted Schottky Barrier Rectifiers

Ordering information (Example)

PREFERRED	UNITWEIGHT(g)	PREFERREDPACKAGECODE	BASEQUANTITY	DELIVERYMODE
SL22				

Typical characteristics

RATINGS AND CHARACTERISTICS CURVES ($T_a = 25^\circ\text{C}$ unless otherwise noted)

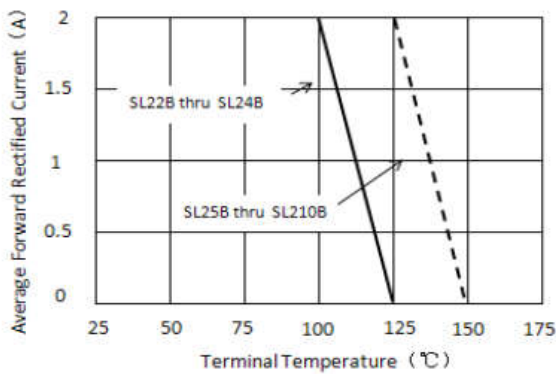


Figure 1. Forward Current Derating Curve



Figure 2. Maximum Non-repetitive Peak Forward Surge Current

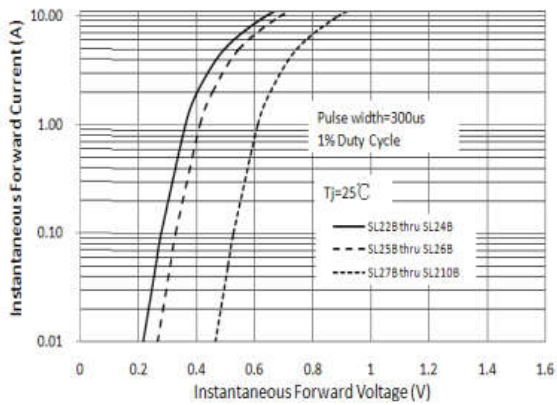


Figure 3. Typical Instantaneous Forward Characteristics

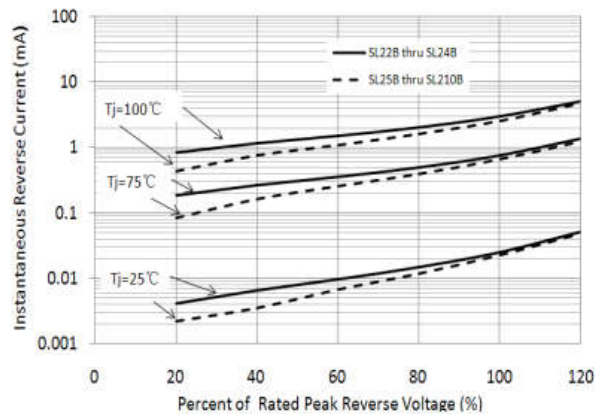
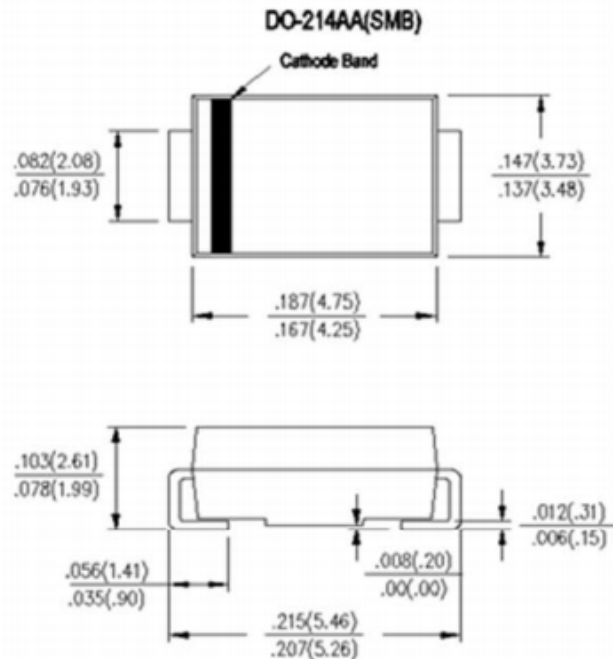


Figure 4. Typical Reverse Characteristics



Package outline dimensions



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