


<p><b><u>SMA</u></b></p> 	<p><b>Features</b></p> <ul style="list-style-type: none"> <li>Low forward voltage drop</li> <li>High current capability</li> <li>Moisture sensitivity: level 1, per J-STD-020</li> <li>AEC-Q101 qualified</li> <li>High temperature soldering guaranteed: 260°C/10 seconds</li> <li>Halogen-free according to IEC 61249-2-21 definition</li> </ul>												
<p><b>Primary characteristics</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;"><math>I_{F(AV)}</math></td><td style="text-align: center;">1A</td></tr> <tr><td style="text-align: center;"><math>V_{RRM}</math></td><td style="text-align: center;">20V to 40V</td></tr> <tr><td style="text-align: center;"><math>I_{FSM}</math></td><td style="text-align: center;">30A</td></tr> <tr><td style="text-align: center;"><math>I_{RM}</math></td><td style="text-align: center;">0.2mA</td></tr> <tr><td style="text-align: center;"><math>V_{FM}</math> at <math>I_F=1A</math></td><td style="text-align: center;">0.42V</td></tr> <tr><td style="text-align: center;"><math>T_J</math> max.</td><td style="text-align: center;">150 °C</td></tr> </table>	$I_{F(AV)}$	1A	$V_{RRM}$	20V to 40V	$I_{FSM}$	30A	$I_{RM}$	0.2mA	$V_{FM}$ at $I_F=1A$	0.42V	$T_J$ max.	150 °C	<p><b>Applications</b></p> <p>For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications</p>
$I_{F(AV)}$	1A												
$V_{RRM}$	20V to 40V												
$I_{FSM}$	30A												
$I_{RM}$	0.2mA												
$V_{FM}$ at $I_F=1A$	0.42V												
$T_J$ max.	150 °C												
	<p><b>Mechanical data</b></p> <ul style="list-style-type: none"> <li>SMA</li> <li>Epoxy meets UL 94 V-0 flammability rating</li> <li>Terminals: Tin plated leads.</li> <li>Polarity: As marked.</li> </ul>												
<p><b>Maximum rating (Ta=25°C unless otherwise noted)</b></p>													
<b>Parameter</b>	<b>Sym</b>	<b>SMA</b>			<b>Unit</b>								
		SL12	SL13	SL14									
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	$I_{F(AV)}$	1			A								
Non-repetitive peak forward surge current 8.3ms single half-sine-wave	$I_{FSM}$	30			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	10											
Operating junction temperature	$T_J$	-55 ~ +150			°C								
Storage temperature	$T_{STG}$	-55 ~ +150			°C								
Typical thermal resistance (Note1)	$R_{\theta J-L}$	TBD			°C/W								
	$R_{\theta J-A}$	TBD											
	$R_{\theta J-C}$	TBD											

**Notes:**

1 The thermal resistance from junction to lead, ambient and cover.



# SL12 thru SL14. Surface Mounted Schottky Barrier Rectifiers

## Ordering information (Example)

PREFERRED	UNITWEIGHT(g)	PREFERREDPACKAGECODE	BASEQUANTITY	DELIVERYMODE
SL12				

## Typical characteristics

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

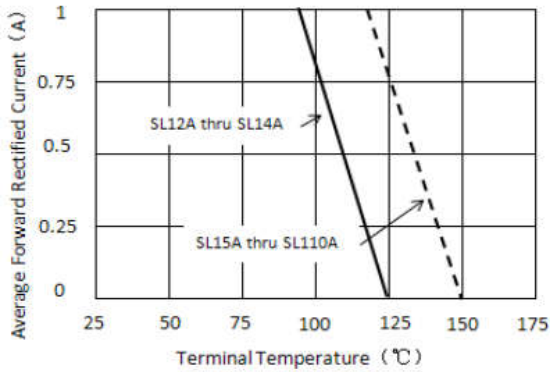


Figure 1. Forward Current Derating Curve

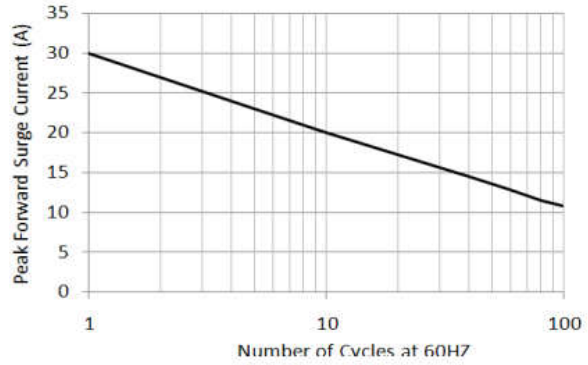


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

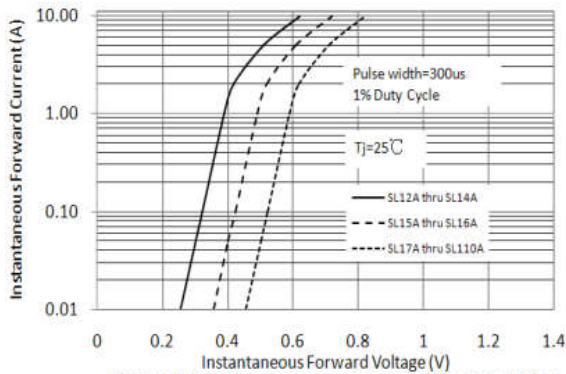


Figure 3. Typical Instantaneous Forward Characteristics

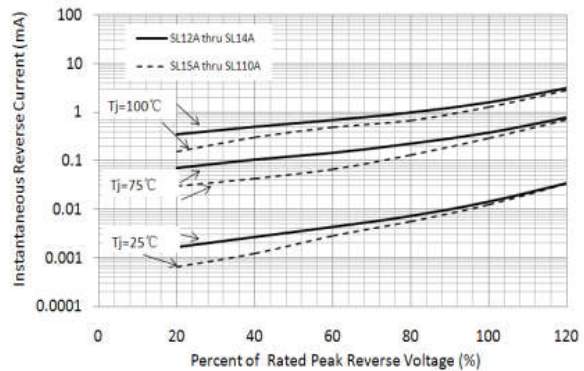
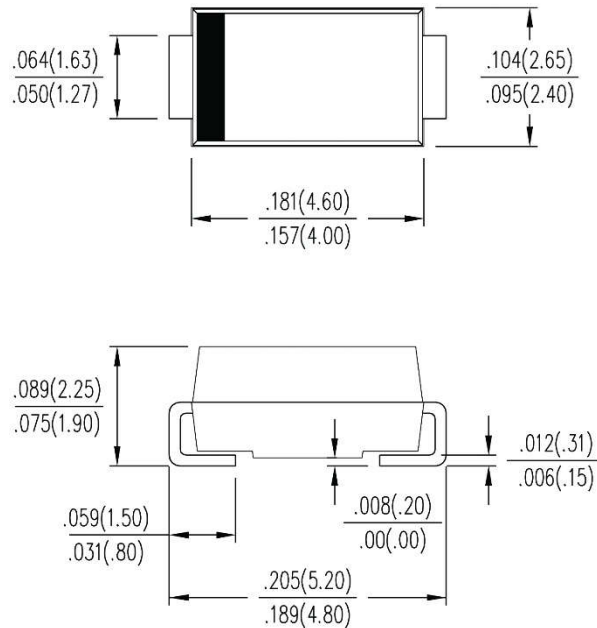


Figure 4. Typical Reverse Characteristics



Package outline dimensions



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