

# SL52C thru SL510C

Surface Mount Schottky Rectifier  
 Reverse Voltage 20-100V Forward Current 5A

## Features

- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Ideal for automated placement
- Meets environmental standard MIL-S-19500D
- Solder dip 275 °C, 10s



Package: DO-214AB (SMC)

## Applications

For use in general purpose rectification of lighting, power supply, inverter, converter and freewheeling diodes for consumer, automotive and telecommunication.

## Maximum Ratings (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbol	SL52C	SL53C	SL54C	SL55C	SL56C	SL57C	SL58C	SL59C	SL510C	Unit	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	70	80	90	100	V	
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	49	56	63	70	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	70	80	90	100	V	
Maximum Average Forward Rectified current at T <sub>L</sub> (See Fig.1)	I <sub>F(AV)</sub>	5									A	
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	120					250					A
Operating Junction Temperature Range	T <sub>J</sub>	- 55 to + 125					- 55 to + 150					°C
Storage Temperature Range	T <sub>stg</sub>	- 55 to + 150									°C	

## Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	SL52C	SL53C	SL54C	SL55C	SL56C	SL57C	SL58C	SL59C	SL510C	Unit	
Maximum Instantaneous Forward Voltage	I <sub>F</sub> =5 A	V <sub>F</sub>	0.43			0.50		0.70				V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	0.5									mA	
	T <sub>A</sub> =100°C		50										
Typical Junction Capacitance	4.0 V, 1 MHz	C <sub>J</sub>	350										pF

## Thermal Characteristics

Parameter	Symbol	SL52C	SL53C	SL54C	SL55C	SL56C	SL57C	SL58C	SL59C	SL510C	Unit
Maximum Thermal Resistance	R <sub>θJA</sub> (1)	60			-		90				°C/W
	R <sub>θJL</sub> (2)	12			16		-				

Notes: (1) Thermal resistance from junction to ambient, 0.276x 0.276 inch (7.0x7.0mm) copper pads to each terminal

(2) Thermal resistance from junction to lead, 0.276x0.276 inch (7.0x7.0mm) copper pads to each lead

## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

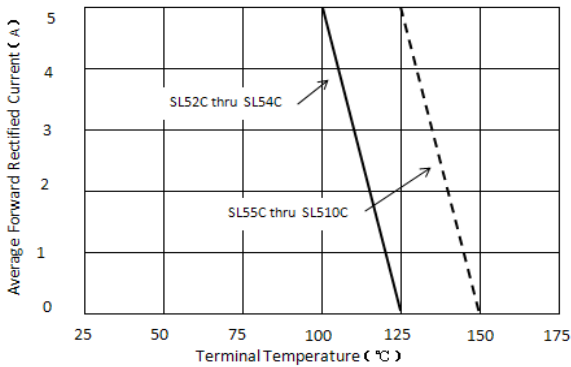


Figure 1. Forward Current Derating Curve

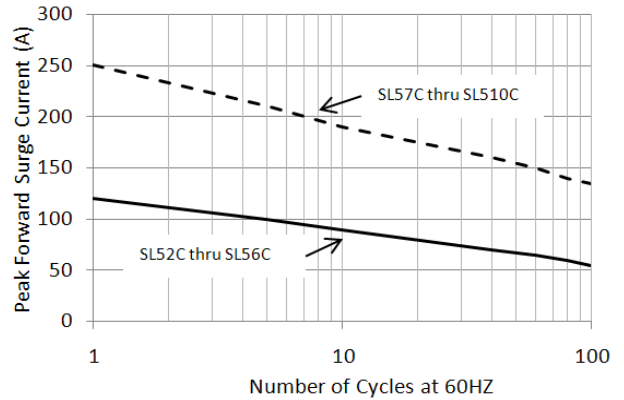


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

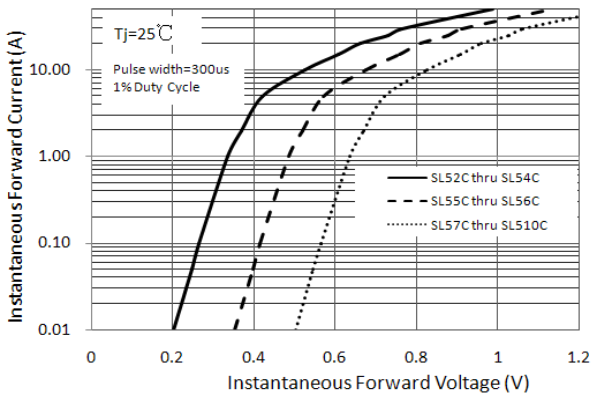


Figure 3. Typical Instantaneous Forward Characteristics

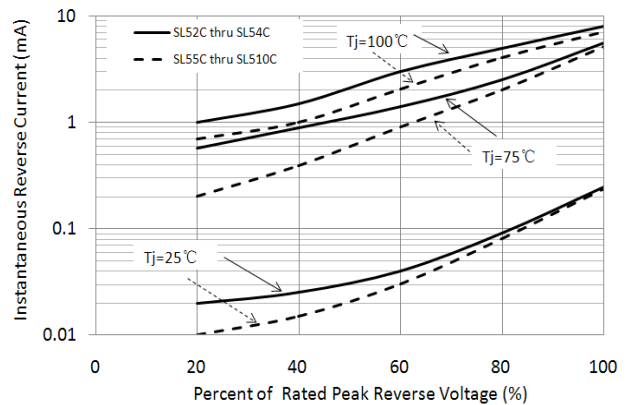


Figure 4. Typical Reverse Characteristics

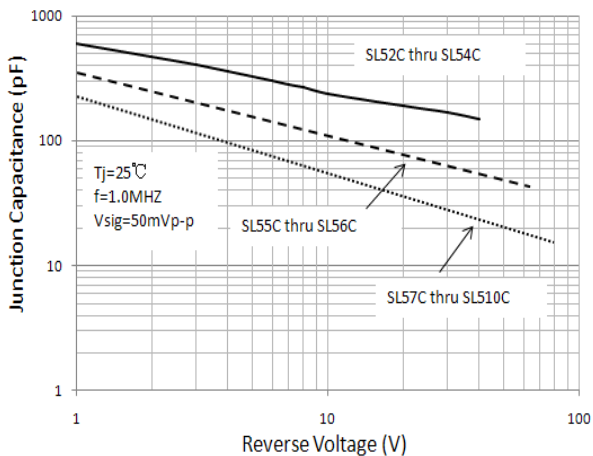


Figure 5. Typical Junction Capacitance

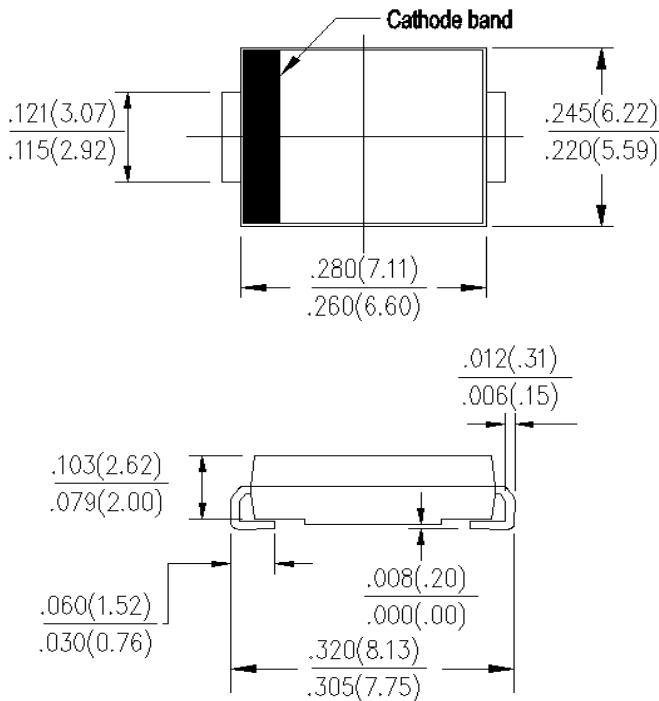
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## Package Outline Dimensions

in inches (millimeters)

DO-214AB (SMC)



## Mounting Pad Layout

