THE DATASHEET OF

SL56C

SL52C thru SL510C

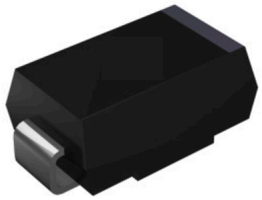
Surface Mount Schottky Rectifier

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

RoHS
COMPLIANT



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$_A$ = 25°C unless otherwise noted)

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

Electrical Characteristics (T$_A$ = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	SL52C	SL53C	SL54C	SL55C	SL56C	SL57C	SL58C	SL59C	SL510C	Unit
Maximum Instantaneous Forward Voltage	I_F=5 A	V_F	0.43			0.50		0.70				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25°C	I_R	0.5									mA
	T_A=100°C		50									
Typical Junction Capacitance	4.0 V, 1 MHz	C_J	350									pF

Thermal Characteristics

Parameter	Symbol	SL52C	SL53C	SL54C	SL55C	SL56C	SL57C	SL58C	SL59C	SL510C	Unit
Maximum Thermal Resistance	$R_{\theta JA}$ (1)	60			-		90				°C/W
	$R_{\theta JL}$ (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, 0.276×0.276 inch (7.0×7.0mm) copper pads to each lead

Ratings and Characteristics Curves

(T_A = 25°C unless otherwise noted)

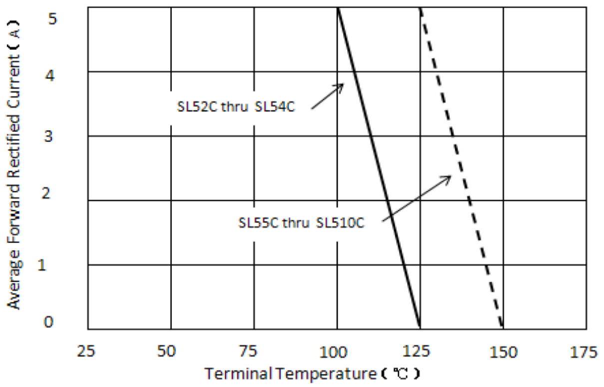


Figure 1. Forward Current Derating Curve

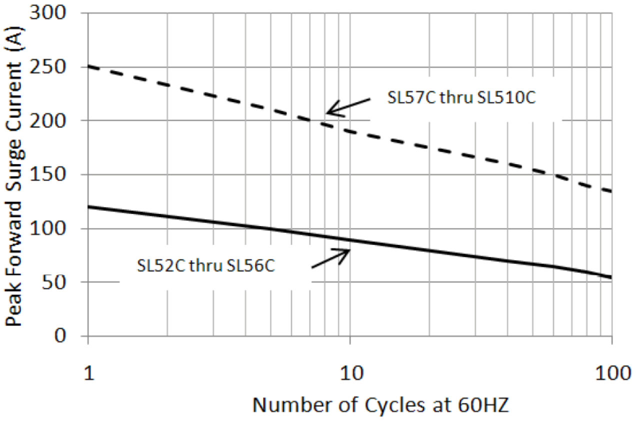


Figure 2.Maximum Non-repetitive Peak Forward Surge Current

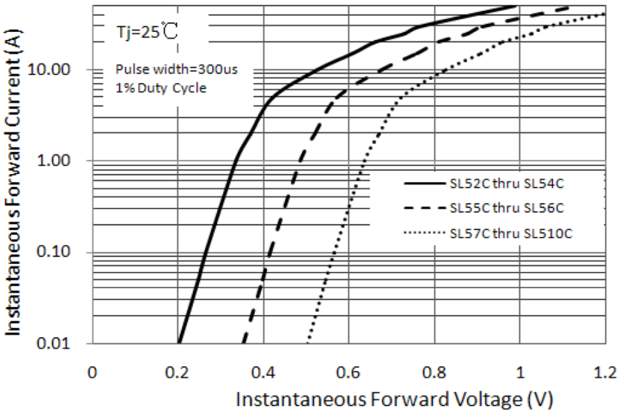


Figure 3. Typical Instantaneous Forward Characteristics

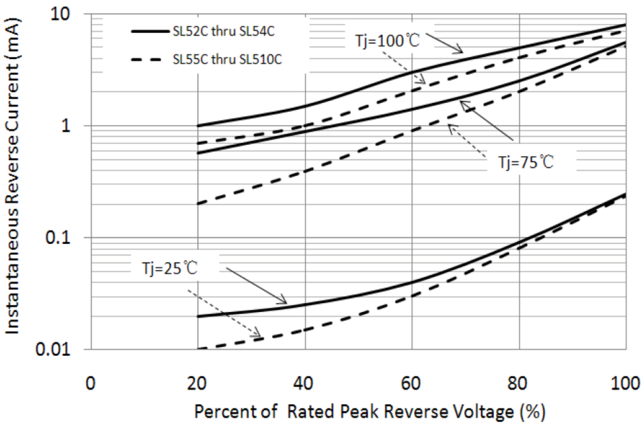


Figure 4. Typical Reverse Characteristics

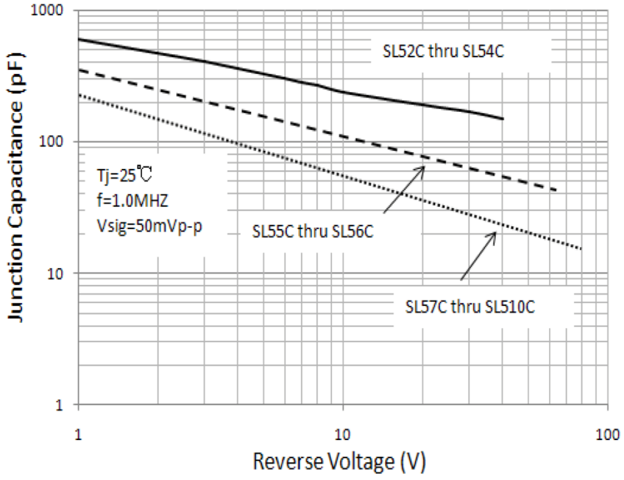


Figure 5. Typical Junction Capacitance

Package Outline Dimensions

in inches (millimeters)

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