GOOD-ARK

SL52C thru SL510C

Surface Mount Schottky Barrier Rectifier



DO-214AB（SMC）

FEATURES

- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Meets environmental standard MIL-S-19500D
- Moisture sensitivity:level 1, per J-STD-020
- Solder dip 275 °C, 10 s
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

TYPICAL APPLICATIONS

For use in general purpose rectification of lighting, power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	5 A
V_{RRM}	20 V to 100 V
I_{FSM}	120A，250A
V_F	0.43V，0.5V，0.7V
T_J max.	125 °C，150 °C

MECHANICAL DATA

Case: DO-214AB, molded epoxy body，Epoxy meets UL 94V-0 flammability rating

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22B-106

Polarity: Laser Band Denotes Cathode Band

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 TL(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	T_{STG}	- 55 to + 150									°C

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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	IF=5 A	V_F	0.43			0.5		0.7				V
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I_R	0.5									mA
	TA=100°C		50									
Typical junction capacitance	4.0 V, 1 MHz	C_J	350									pF

THERMAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)											
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,0.276×0.276″ (7.0×7.0mm) copper pads to each terminal
(2) Thermal resistance from junction to Lead, 0.276×0.276″ (7.0×7.0mm) copper pads to each Lead

RATINGS AND CHARACTERISTICS CURVES

(T = 25 °C unless otherwise noted)

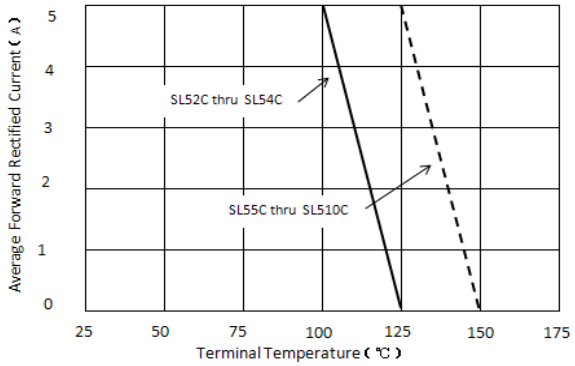


Figure 1. Forward Current Derating Curve

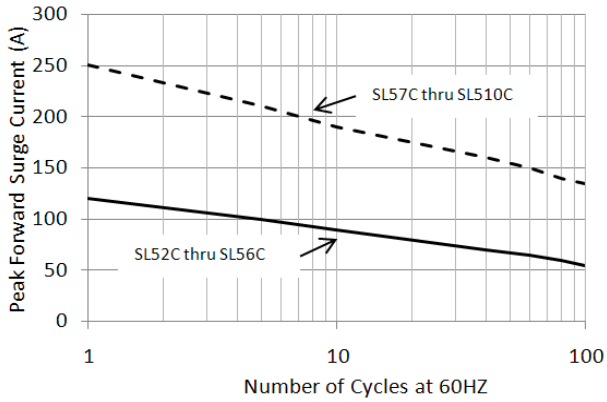


Figure 2.Maximum Non-repetitive Peak Forward Surge Current

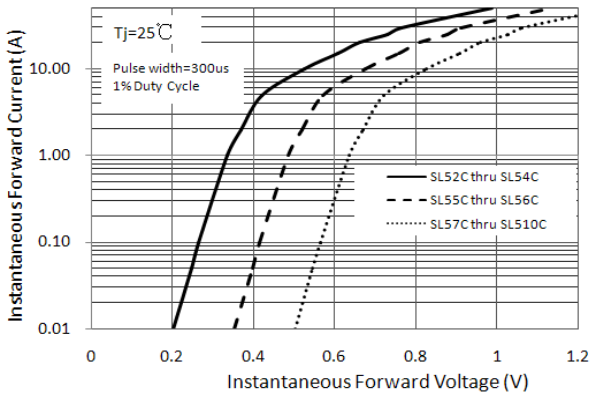


Figure 3. Typical Instantaneous Forward Characteristics

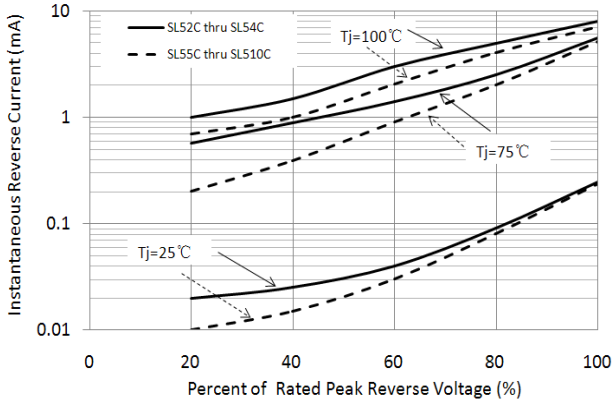


Figure 4. Typical Reverse Characteristics

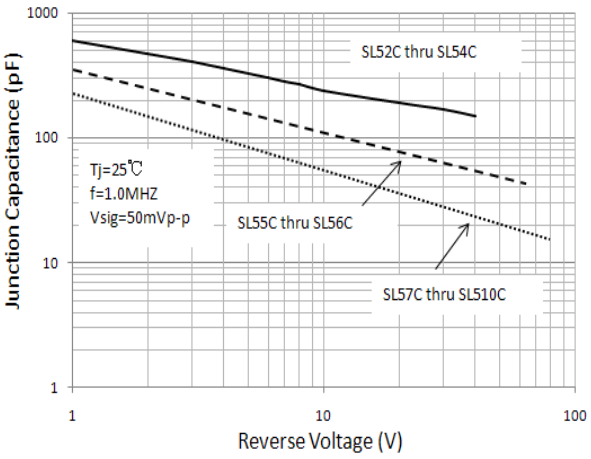


Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

