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	
$I_{F(AV)}$	3 A
V_{RRM}	20 V to 100 V
I_{FSM}	80A
V_F	0.42V，0.5V，0.75V
T_J max.	125 °C ，150 °C，175 °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	SL32C	SL33C	SL34C	SL35C	SL36C	SL37C	SL38C	SL39C	SL310C	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)	$I_{F(AV)}$	3									A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	80									A
Operating junction temperature range	T_J	- 55 to + 125			- 55 to + 150						°C
Storage temperature range	T_{STG}	- 55 to + 150									°C

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)												
PARAMETER	**TEST CONDITIONS**	**SYMBOL**	**SL32C**	**SL33C**	**SL34C**	**SL35C**	**SL36C**	**SL37C**	**SL38C**	**SL39C**	**SL310C**	UNIT
Maximum instantaneous forward voltage	IF=3 A	V_F	0.42			0.5		0.75				V
Maximum DC reverse current at rated DC blocking voltage	TA=25℃	I_R	0.2					0.05				mA
	TA=100℃		50					4				
Typical junction capacitance	4.0 V, 1 MHz	C_J	220									pF

THERMAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)											
PARAMETER	**SYMBOL**	**SL32C**	**SL33C**	**SL34C**	**SL35C**	**SL36C**	**SL37C**	**SL38C**	**SL39C**	**SL310C**	**UNIT**
Maximum thermal resistance	$R_{\theta JA}$ (1)	52					75				°C/W
	$R_{\theta JT}$ (2)	17					25				

Notes: (1) Thermal resistance from junction to ambient,0.315×0.315″（8.0×8.0mm）copper pads to each terminal
(2) Thermal resistance from junction to terminal, 0.315×0.315″（8.0×8.0mm）copper pads to each terminal

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25 °C unless otherwise noted)

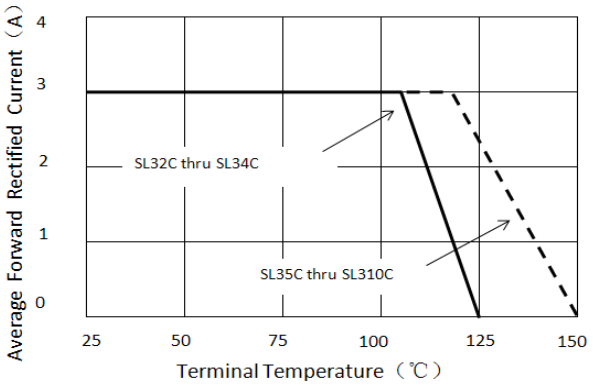

Figure 1. Forward Current Derating Curve

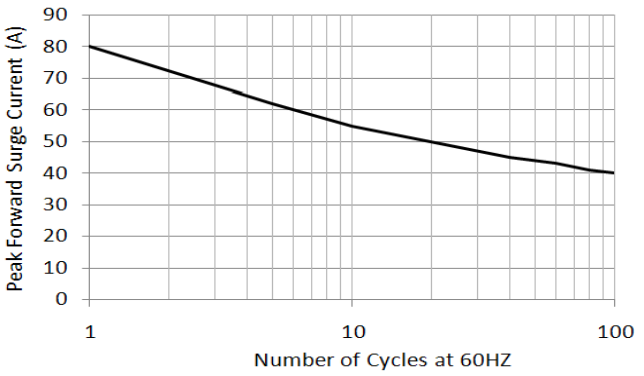

Figure 2.Maximum Non-repetitive Peak Forward Surge Current

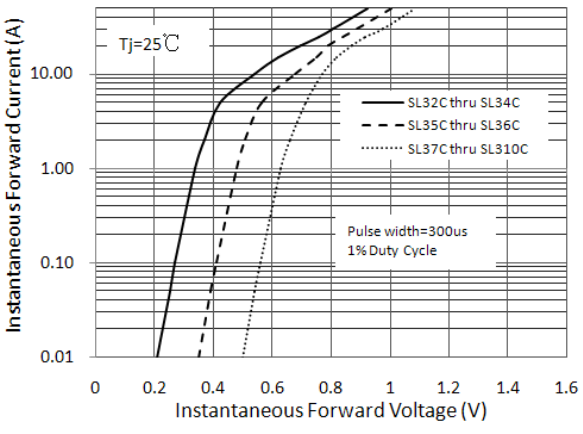

Figure 3. Typical Instantaneous Forward Characteristics

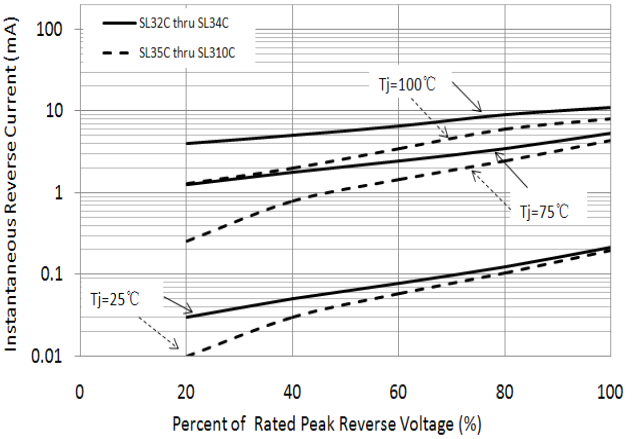

Figure 4. Typical Reverse Characteristics

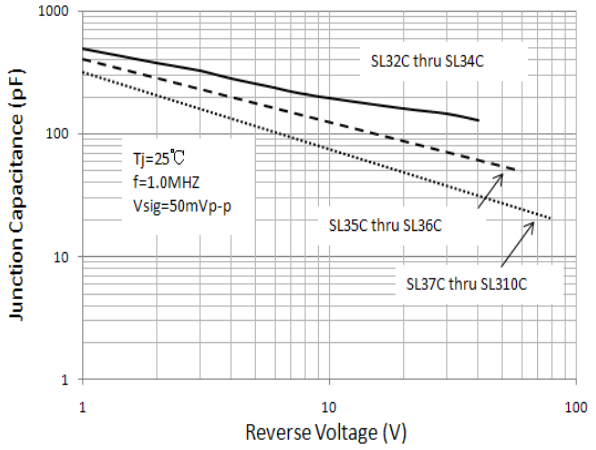

Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)