SL12A thru SL110A

Surface Mount Schottky Rectifier

Reverse Voltage 20 - 100V Forward Current 1A

FEATURES

Package: DO-214AC（SMA))

- 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, 10s
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

APPLICATIONS

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

RoHS COMPLIANT

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	1 A
V_{RRM}	20 V to 100 V
I_{FSM}	30A
V_F	0.42V,0.5V,0.68V
T_J max.	125 °C ,150°C

MECHANICAL DATA

Case: DO-214AC, 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	SL12A	SL13A	SL14A	SL15A	SL16A	SL17A	SL18A	SL19A	SL110A	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)	$I_{F(AV)}$	1									A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30									A
Operating junction temperature range	T_J	- 55 to + 125			- 55 to + 150						°C
Storage temperature range	Tstg	- 55 to + 150									°C

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ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)												
PARAMETER	**TEST CONDITIONS**	**SYMBOL**	**SL12A**	**SL13A**	**SL14A**	**SL15A**	**SL16A**	**SL17A**	**SL18A**	**SL19A**	**SL110A**	UNIT
Maximum instantaneous forward voltage	I_F=1 A	V_F	0.42			0.5		0.68				V
Maximum DC reverse current at rated DC blocking voltage	T_A=25°C T_A=100°C	I_R	0.2 10									mA
Typical junction capacitance	4.0 V, 1 MHz	C_J	85									pF

THERMAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)											
PARAMETER	**SYMBOL**	**SL12A**	**SL13A**	**SL14A**	**SL15A**	**SL16A**	**SL17A**	**SL18A**	**SL19A**	**SL110A**	**UNIT**
Maximum thermal resistance	$R_{\theta JA}$ (1)	TBD									°C/W
	$R_{\theta JT}$ (2)	TBD									

Notes: (1) Thermal resistance from junction to ambient, 0.197x 0.197 inch (5.0x5.0mm) copper pads to each terminal

(2) Thermal resistance from junction to terminal, 0.197×0.197 inch (5.0×5.0mm) copper pads to each terminal

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

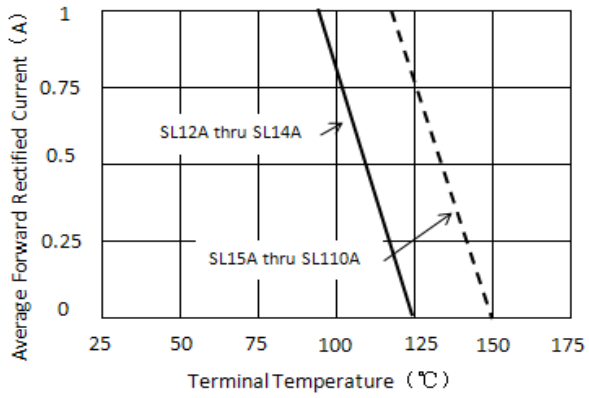

Figure 1. Forward Current Derating Curve

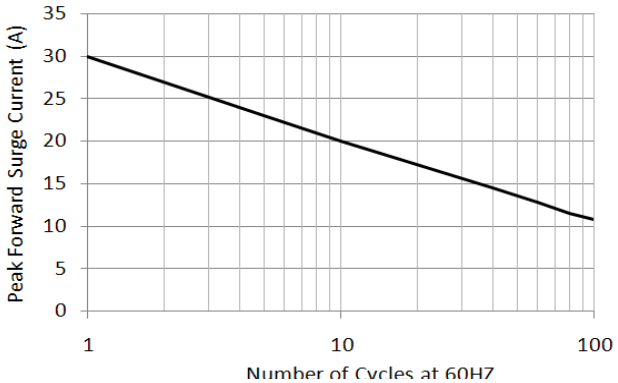

Figure 2.Maximum Non-repetitive Peak Forward Surge Current

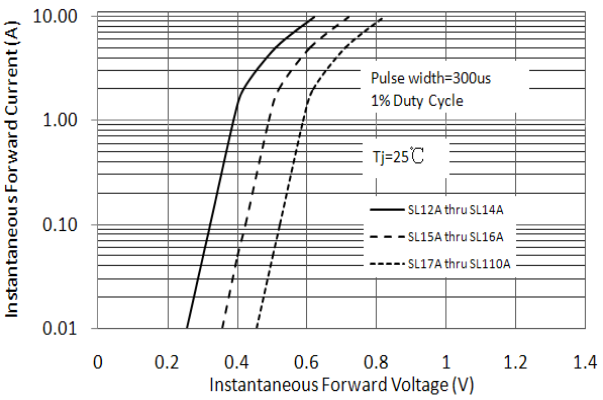

Figure 3. Typical Instantaneous Forward Characteristics

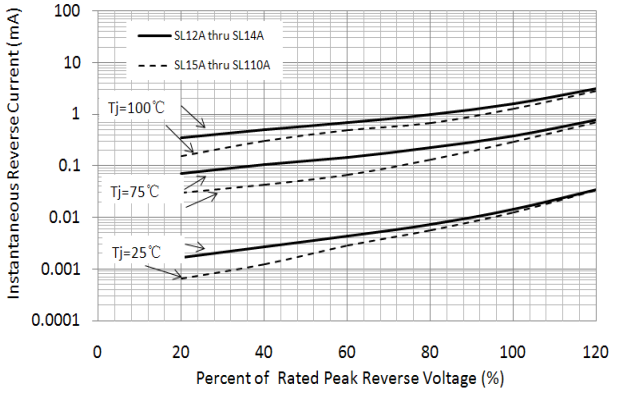

Figure 4. Typical Reverse Characteristics

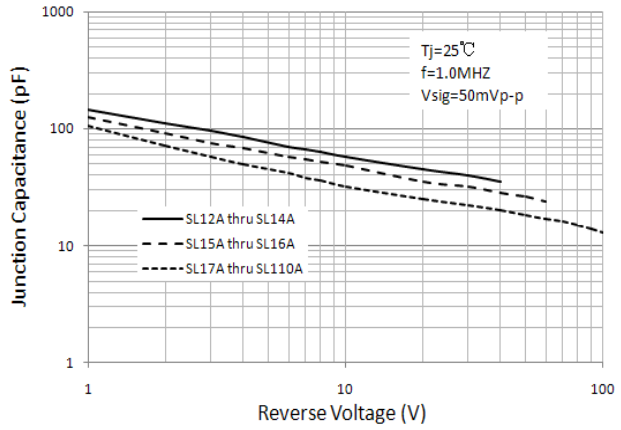

Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)