

Surface Mount Schottky Barrier Rectifier

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



DO-214AC (SMA)

TYPICAL APPLICATIONS

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

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	1 A
V_{RRM}	20 V to 100 V
I_{FSM}	30A
V_F	0.42V, 0.5V, 0.68V
$T_J \text{ max.}$	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 (TA = 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	T_{stg}	- 55 to + 150									°C

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	IF=1 A	V _F	0.42			0.5		0.68				V
Maximum DC reverse current at rated DC blocking voltage	T _A =25°C	I _R	0.2									mA
	T _A =100°C		10									
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 _{θJA} (1)	TBD									°C/W	
	R _{θJT} (2)	TBD										

Notes: (1) Thermal resistance from junction to ambient, 0.197 × 0.197" (5.0 × 5.0mm) copper pads to each terminal
 (2) Thermal resistance from junction to terminal, 0.197 × 0.197" (5.0 × 5.0mm) copper pads to each terminal

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

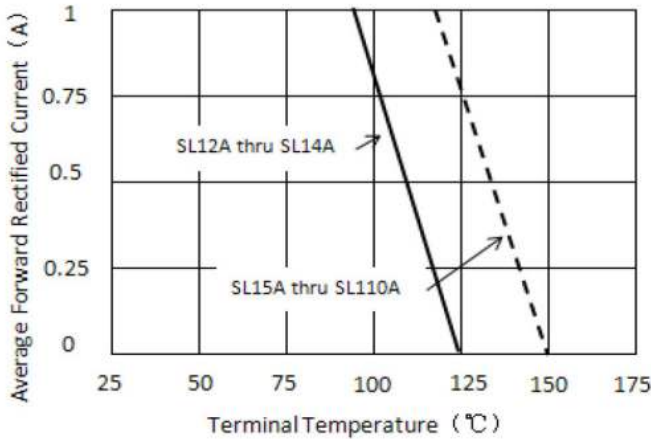


Figure 1. Forward Current Derating Curve

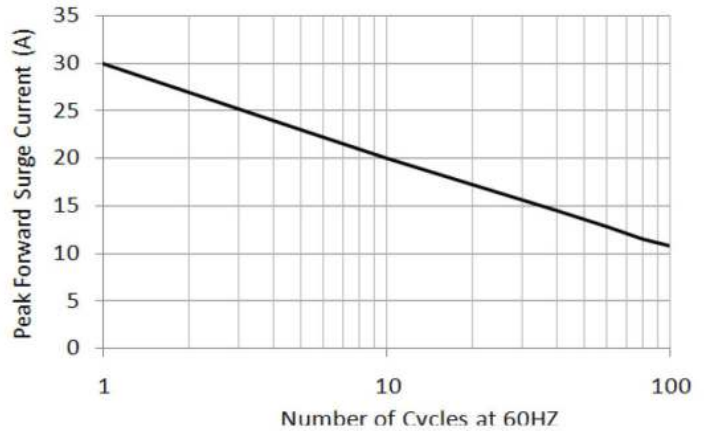


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

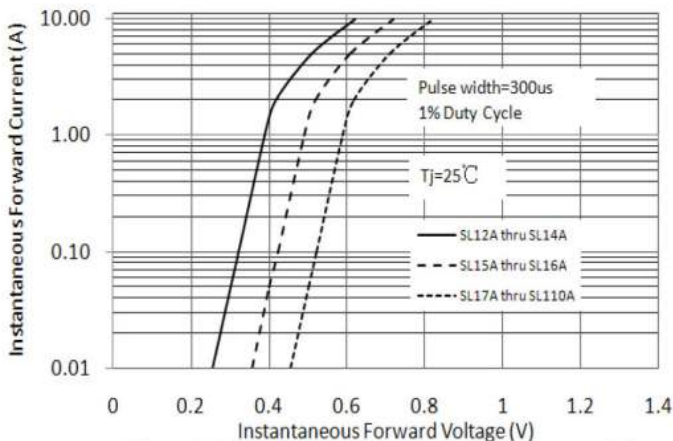


Figure 3. Typical Instantaneous Forward Characteristics

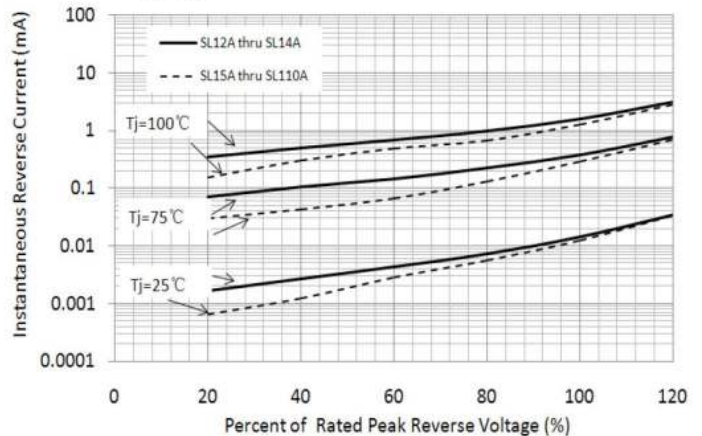


Figure 4. Typical Reverse Characteristics

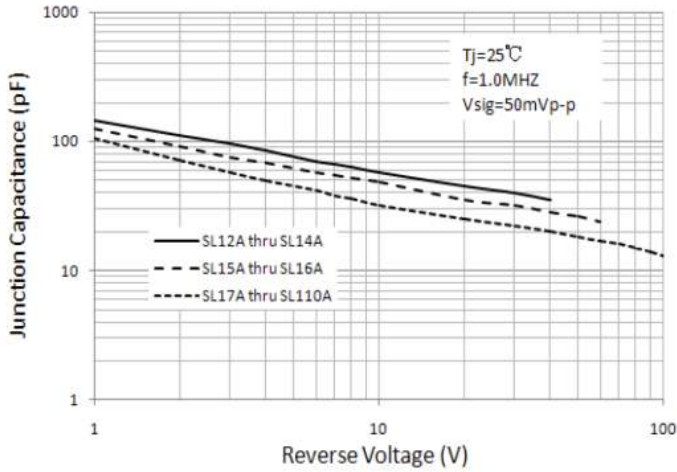


Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

