

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)}	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-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	SL32A	SL33A	SL34A	SL35A	SL36A	SL37A	SL38A	SL39A	SL310A	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 SL32A thru SL34A T _L = 90 °C SL35A thru SL36A T _L = 110 °C SL37A thru SL310A T _L = 120 °C	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			- 55 to + 175			°C	
Storage temperature range	T _{stg}	- 55 to + 150					- 55 to + 175					°C



SL32A ~ SL310A

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)												
PARAMETER	TEST CONDITIONS	SYMBOL	SL32A	SL33A	SL34A	SL35A	SL36A	SL37A	SL38A	SL39A	SL310A	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°C	I _R	0.2					0.05				mA
	TA=100°C		50					4				
Typical junction capacitance	4.0 V, 1 MHz	C _J	285									pF

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)											
PARAMETER	SYMBOL	SL32A	SL33A	SL34A	SL35A	SL36A	SL37A	SL38A	SL39A	SL310A	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)

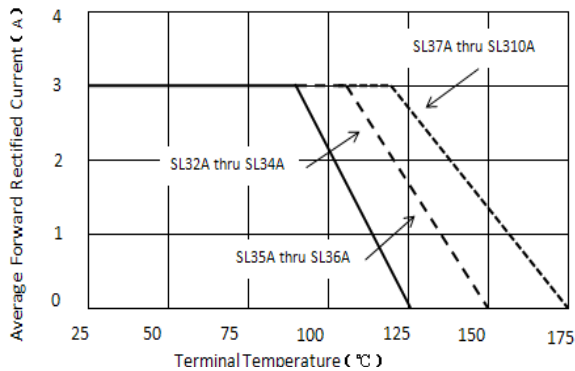


Figure 1. Forward Current Derating Curve

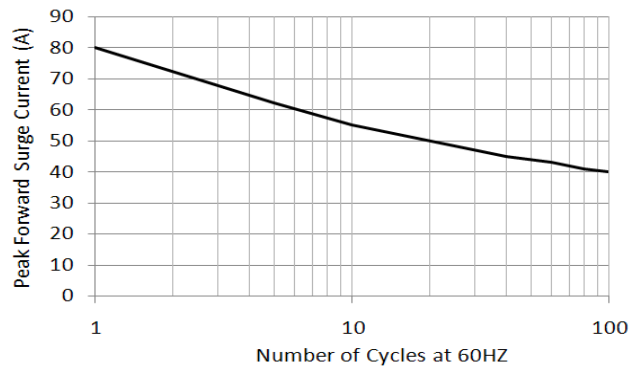


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

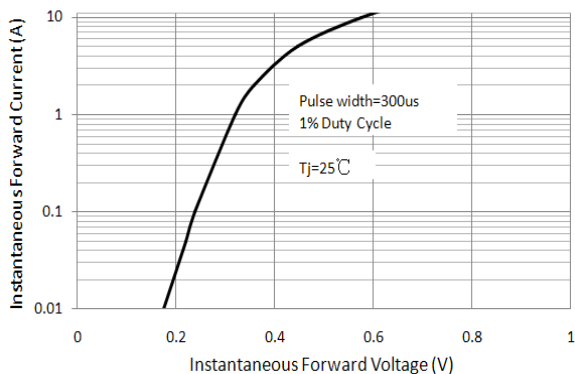


Figure 3. Typical Instantaneous Forward Characteristics

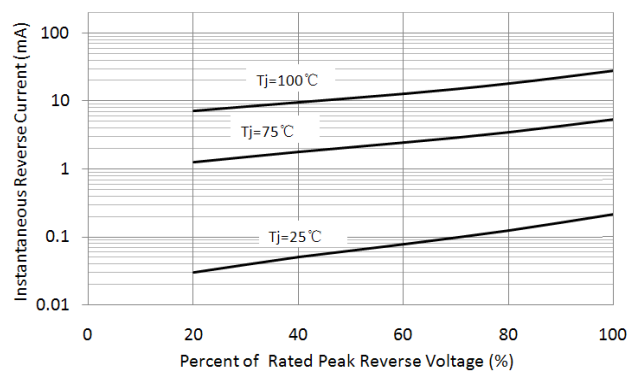


Figure 4. Typical Reverse Characteristics

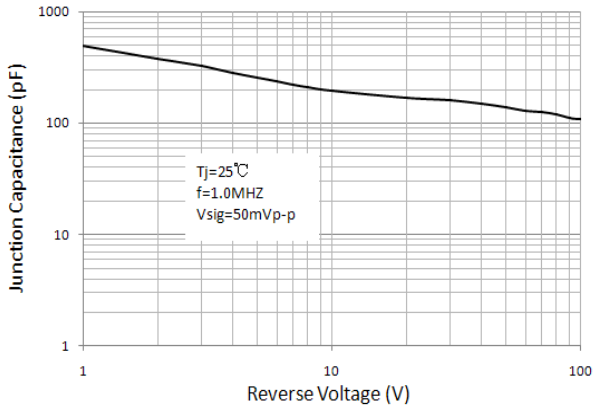


Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

