SL32A thru SL310A

Surface Mount Schottky Barrier Rectifier



DO-214AC• SMA• •

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

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 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	Tstg	- 55 to + 150									°C

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• •	I_R	0.2					0.05				mA
	TA=100• •		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	$R_{\theta JA}$ (1)	80									°C/W
	$R_{\theta JT}$ (2)	20									

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)

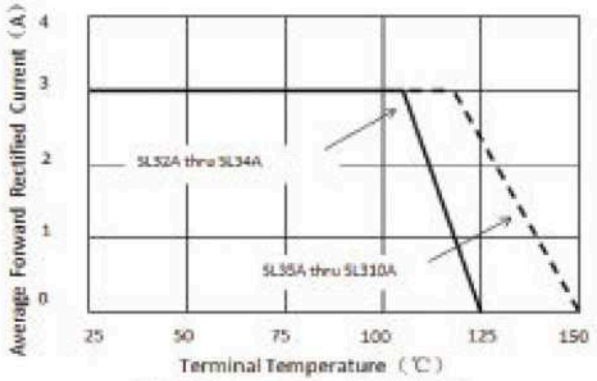


Figure 1. Forward Current Derating Curve



Figure 2.Maximum Non-repetitive Peak Forward Surge Current

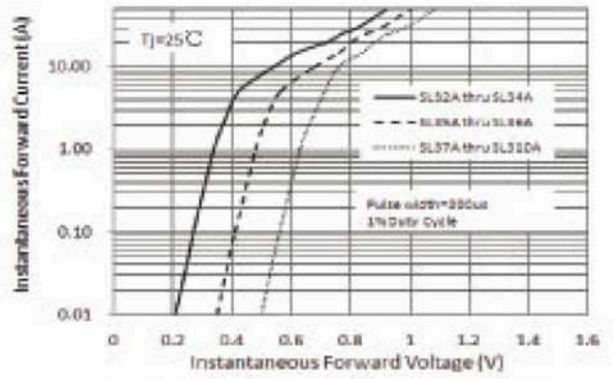


Figure 3. Typical Instantaneous Forward Characteristics

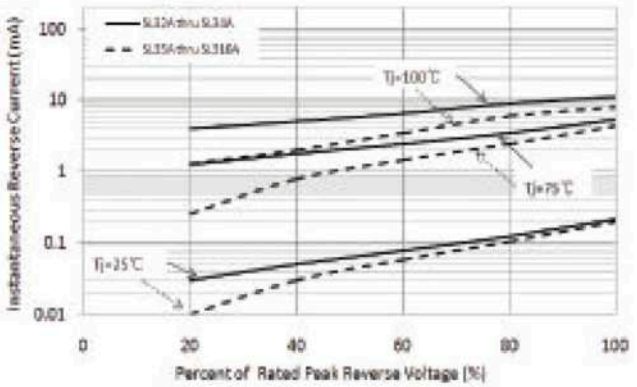


Figure 4. Typical Reverse Characteristics

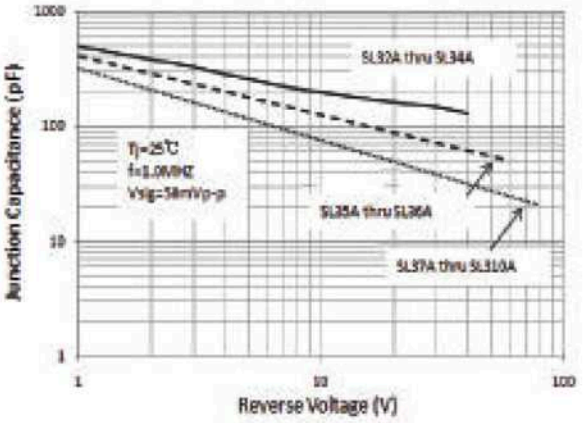


Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

