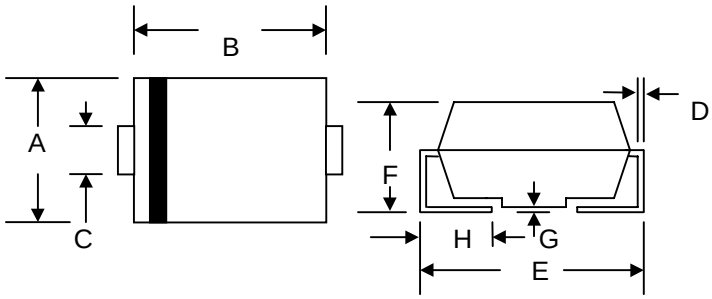
SL12 – SL14

1.0A LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 30A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)

SMA/DO-214AC		
Dim	**Min**	**Max**
A	2.50	2.90
B	4.00	4.60
C	1.40	1.60
D	0.152	0.305
E	4.80	5.28
F	2.00	2.44
G	0.051	0.203
H	0.76	1.52
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	SL12	SL13	SL14	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current @T_L = 75°C	I_O	1.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30			A
Forward Voltage @I_F = 1.0A	V_{FM}	0.38	0.38	0.40	V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.5 20			mA
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	88			K/W
Operating Temperature Range	T_j	-65 to +125			°C
Storage Temperature Range	T_{STG}	-65 to +150			°C

Note: 1. Mounted on P.C. Board with 5.0mm^2 (0.13mm thick) copper pad areas

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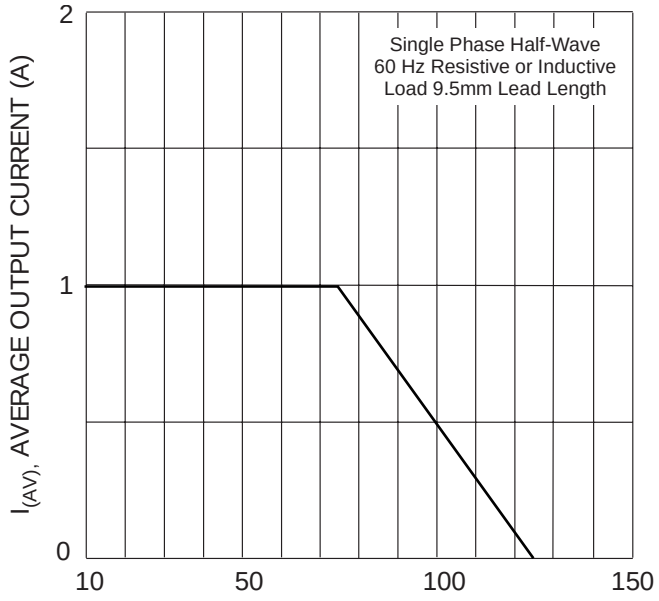

Fig. 1 Forward Current Derating Curve

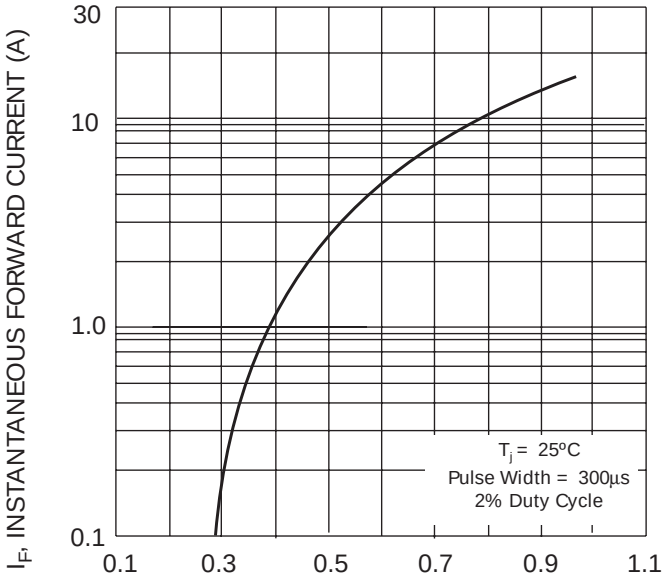

Fig. 2 Typical Forward Voltage Characteristics

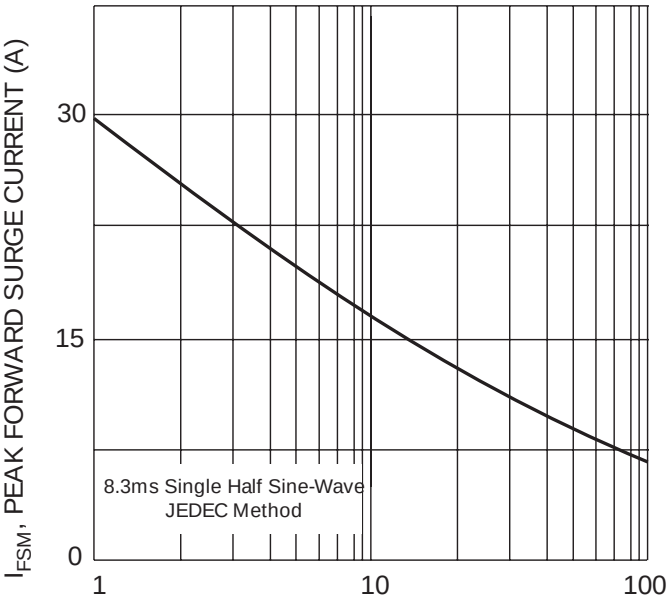

Fig. 3 Peak Forward Surge Current

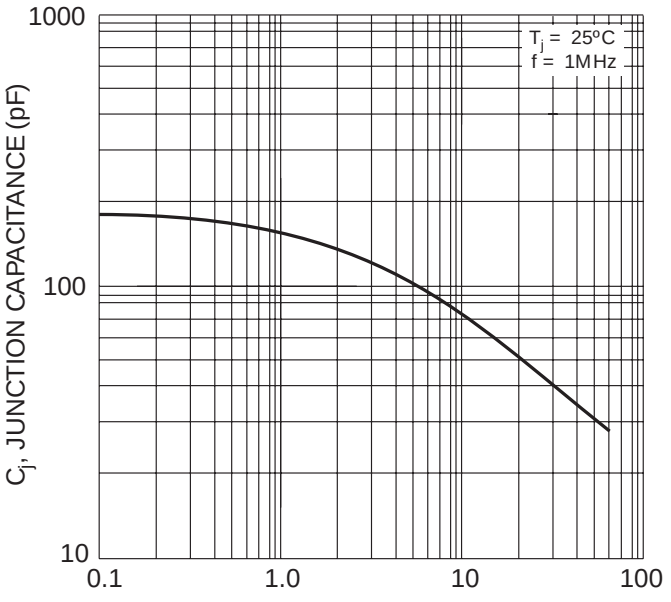

Fig. 4 Typical Junction Capacitance

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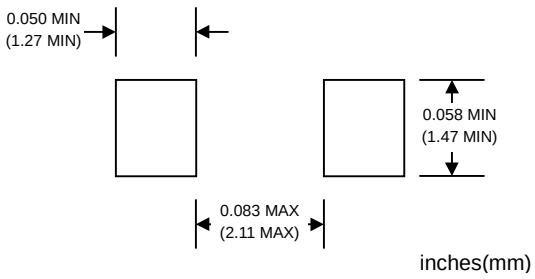
ORDERING INFORMATION

Product No.◆	Package Type	Shipping Quantity
SL12-T1	SMA	1800/Tape & Reel
SL12-T3	SMA	7500/Tape & Reel
SL13-T1	SMA	1800/Tape & Reel
SL13-T3	SMA	7500/Tape & Reel
SL14-T1	SMA	1800/Tape & Reel
SL14-T3	SMA	7500/Tape & Reel

Products listed in **bold** are WTE **Preferred** devices.
◆T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.
Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

RECOMMENDED FOOTPRINT



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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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