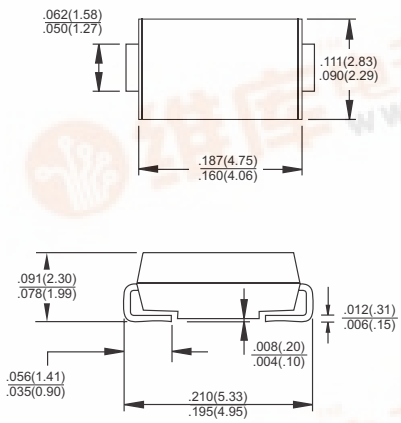
SSL12 THRU SSL14

1.0 AMP. Surface Mount Low V_F Schottky Barrier Rectifiers

Voltage Range
20 to 40 Volts
Current
1.0 Ampere

SMA/DO-214AC



Dimensions in inches and (millimeters)

Features

- ✧ For surface mounted application
- ✧ Metal silicon junction, majority carrier conduction
- ✧ Low forward voltage drop
- ✧ Easy pick and place
- ✧ High surge current capability
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260°C / 10 seconds at terminals

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 12mm tape per EIA STD RS-481
- ✧ Weight: 0.064 gram

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	SSL12	SSL13	SSL14	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	1.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30			A
Maximum Instantaneous Forward Voltage (Note 1) @ 1.0A	V_F	0.385		0.40	V
Maximum DC Reverse Current @ T_A =25℃ at	I_R	0.5			mA
Rated DC Blocking Voltage @ T_A=100℃		50			mA
Maximum Thermal Resistance (Note 2)	$R\theta_{JL}$ $R\theta_{JA}$	28 88			℃/W
Marking Code		SL12	SL13	SL14	
Operating Temperature Range	T_J	-65 to +125			℃
Storage Temperature Range	T_{STG}	-65 to + 125			℃

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle.
2. Measured on P.C. Board with 0.2 x 0.2"(5.0 x 5.0mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (SSL12 THRU SSL14)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

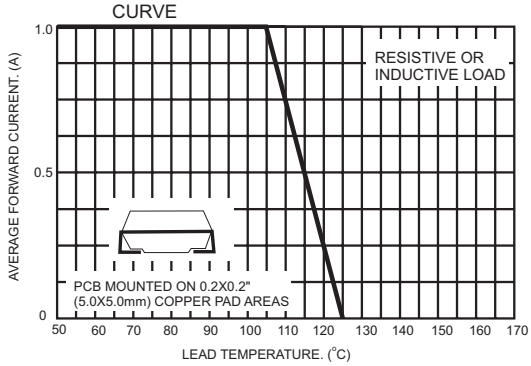


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

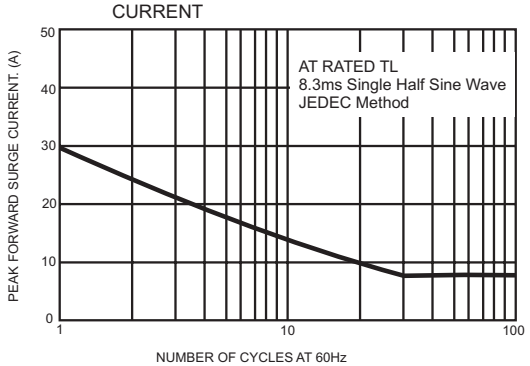


FIG.3- TYPICAL FORWARD CHARACTERISTICS

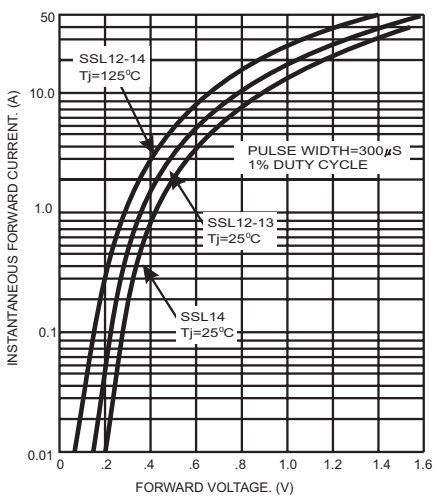


FIG.4- TYPICAL REVERSE CHARACTERISTICS

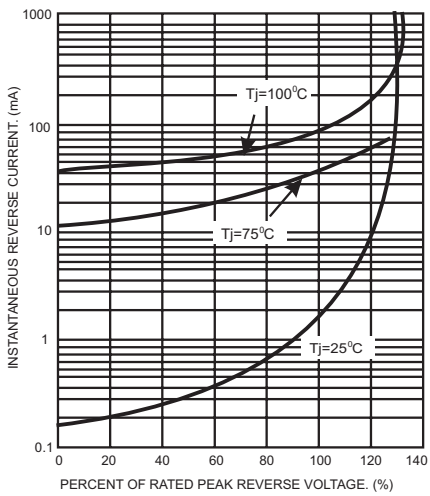


FIG.5- TYPICAL JUNCTION CAPACITANCE