

**SL12 THRU SL14**

**VOLTAGE 20V ~ 40V**

**1.0AMP Surface Mount Schottky Barrier Rectifiers**

**FEATURES**

- \* For surface mount applications
- \* Epitaxial construction
- \* Very low forward voltage drop
- \* For use in low voltage, high frequency inverter, free wheeling

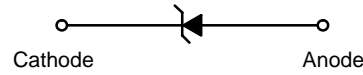
DO- 214AC

SMA



**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL 94V- 0 rate flame retardant
- \* Polarity: Color band denotes cathode end
- \* Weight: 0.064 grams



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

TYPE NUMBER	SL12	SL13	SL14	UNITS
Maximum Repetitive Peak Reverse Voltage	20	30	40	V
Maximum RMS Voltage	14	21	28	V
Maximum DC Blocking Voltage	20	30	40	V
Maximum Average Forward Rectified Current				
See Fig. 1	1.0			A
Peak Forward Surge Current, 8.3 ms single half sine- wave superimposed on rated load (JEDEC method)	30			A
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	0.385	0.385	0.4	V
Maximum DC Reverse Current Ta=25 C	2			mA
at Rated DC Blocking Voltage Ta=100 C	100			mA
Typical Thermal Resistance RJA (Note 2)	28			°C/W
Operating Temperature Range Tj	- 55 — +125			°C
Storage Temperature Range Tstg	- 55 — +150			°C

**NOTES**

1. Pulse Test with PW=300usec, 1% Duty Cycle
2. Measured on PCB with 5.0x5.0 mm Copper Pad Area

## RATING AND CHARACTERISTIC CURVES (SL12 THRU SL14)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

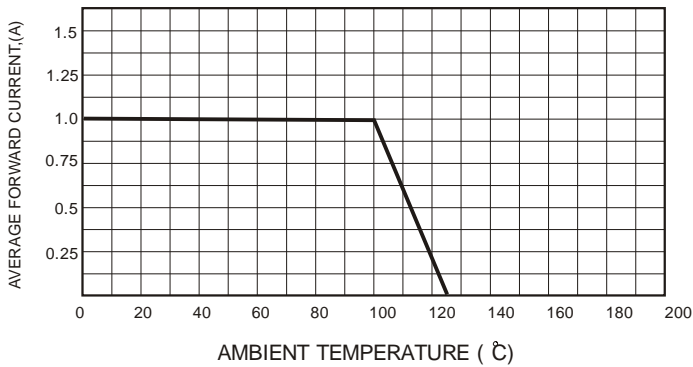


FIG.2-TYPICAL FORWARD CHARACTERISTICS

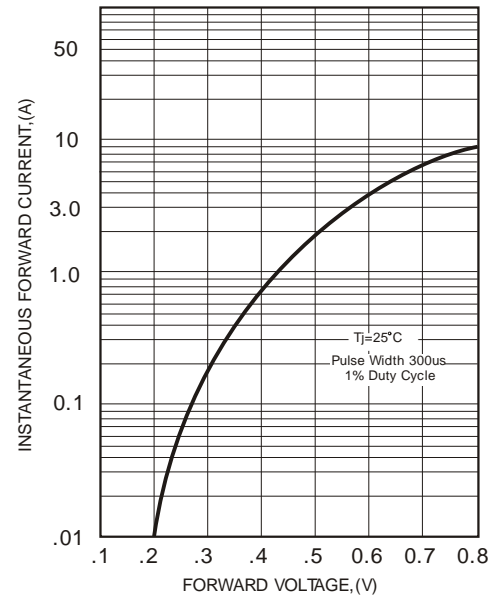


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

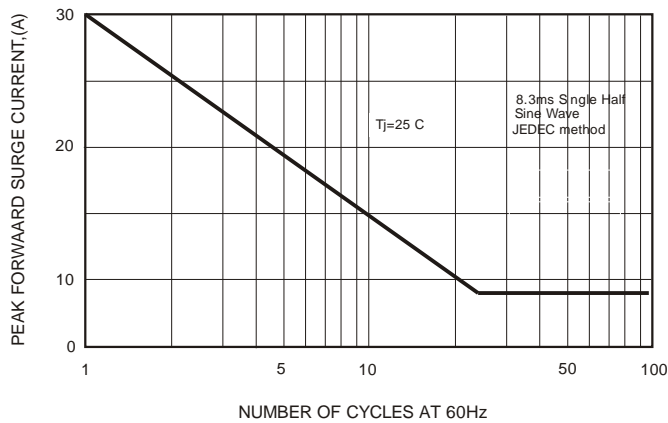


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

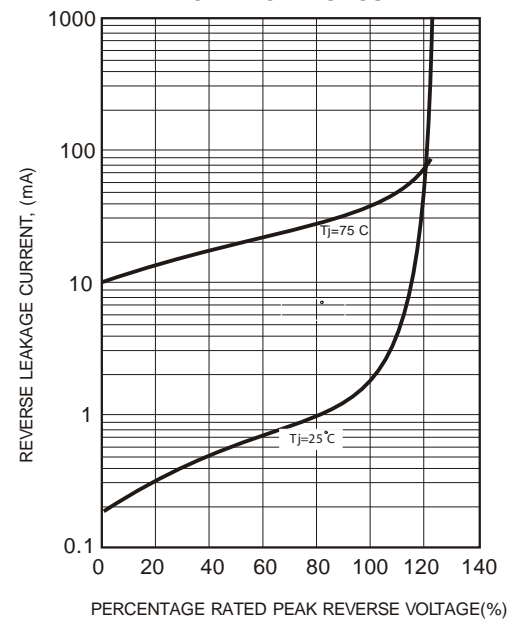
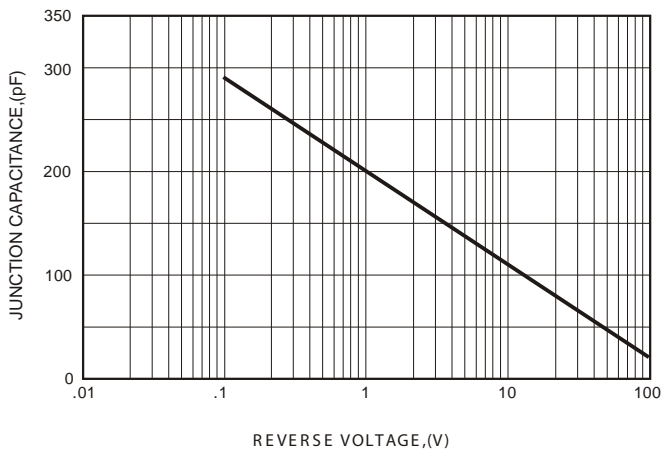


FIG.4-TYPICAL JUNCTION CAPACITANCE



Package Dimensions in inches and (millimeters)

