SX3XLF SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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SX32LF THRU SX310LF

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



REVERSE VOLTAGE: 20 to 100 VOLTS FORWARD CURRENT: 3.0 AMPERE

FEATURES

- Plastic package has Underwriters Laboratory
 Flammability Classification 94V-O
- · For surface mounted applications
- · High current capacity
- · Built-in strain relief
- · Low profile package
- · Metal to silicon rectifier. majority carrier conduction
- · High surge capacity
- · Low power loss, high efficiency
- · For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- · High temperature soldering: 250°C/10 seconds at terminals

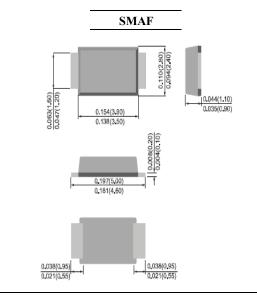
MECHANICAL DATA

Case: Molded plastic, SMAF

Terminals: Solder plated, solderable per MIL-STD-750,

method 2026 guaranteed

Polarity: Color band denotes cathode end Packaging: 12mm tape per EIA STD RS-481



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at $25\,^{\circ}$ C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| | Symbols | SX32LF | SX34LF | SX36LF | SX310LF | Units |
|---|-----------------------|-------------|--------|--------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 40 | 60 | 100 | Volts |
| Maximum RMS Voltage | V _{RMS} | 14 | 28 | 42 | 70 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 40 | 60 | 100 | Volts |
| Maximum Average Forward Rectified Current | I _(AV) 3.0 | | | | | Amn |
| See Fig. 1 | I _(AV) | 5.0 | | | | Amp |
| Peak Forward Surge Current, | | | | | | |
| 8.3ms single half-sine-wave | I_{FSM} | 80 | | | | Amp |
| superimposed on rated load (JEDEC method) | | | | | | |
| Maximum Forward Voltage at 3.0A (Note 1) | $V_{\rm F}$ | 0.45 | | 0.55 | 0.70 | Volts |
| Maximum Reverse Current at T _A =25℃ | T | 0.5 | | | | mAmp |
| at Rated DC Blocking Voltage T _A =125℃ | 1 _R | I_R 20 | | | | |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 60 | | | | °C/W |
| | $R_{\theta JL}$ | 20 | | | | |
| Operating Junction Temperature Range | T_{J} | -55 to +150 | | | | ဗ |
| Storage Temperature Range | Tstg | -55 to +150 | | | | င |

NOTES:

- 1- Pulse test: 300µs pulse width, 1% duty cycle
- 2- P.C.B. mounted with 0.55 x 0.55" (14 x 14mm) Copper Pad Areas

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

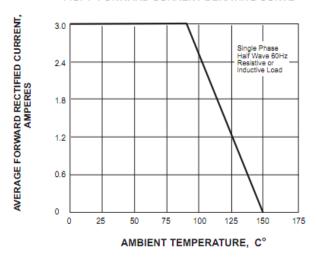


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

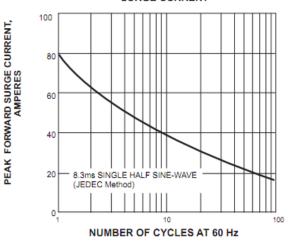
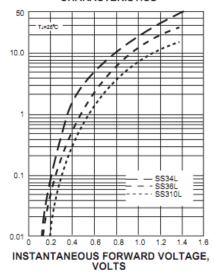


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

