

■ **FEATURES**

- Guardring for overvoltage protection
- Low forward voltage drop, Low power losses
- High forward surge capability
- High frequency operation
- Solder dip 275 °C max. 7 s, per JESD 22-B106

■ **TYPICAL APPLICATIONS**

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

■ **MECHANICAL DATA**

- **Package:** DO-201AD (DO-27)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■ **MAXIMUM RATINGS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SR840L | SR860L | SR8100L |
|--|-----------|------------------|-----------|-----------|---------|
| Device marking code | | | SR840L | SR860L | SR8100L |
| Repetitive Peak Reverse Voltage | VRRM | V | 40 | 60 | 100 |
| Average Rectified Output Current @60Hz sine wave, Resistance load, T_a (FIG.1) | I_O | A | 8.0 | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$ | IFSM | A | 120 | | |
| Storage Temperature | T_{stg} | $^\circ\text{C}$ | -55 ~+150 | | |
| Junction Temperature | T_j | $^\circ\text{C}$ | -55 ~+125 | -55 ~+150 | |

■ **ELECTRICAL CHARACTERISTICS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | SR840L | SR860L | SR8100L |
|---|--------|------|---|--------|--------|---------|
| Maximum instantaneous forward voltage drop per diode | VF | V | IFM=8.0A | 0.48 | 0.50 | 0.70 |
| Maximum DC reverse current at rated DC blocking voltage per diode | IR | mA | $T_a=25^\circ\text{C}$ | 0.2 | | |
| | | | $T_a=100^\circ\text{C}$ | 50 | | |
| Typical junction capacitance | Cj | pF | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C | 430 | 400 | |

Note (1) Typical junction capacitance measured at 1MHZ and applied reverse voltage of 4.0 V.D.C.

■ **THERMAL CHARACTERISTICS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SR840L | SR860L | SR8100L |
|--------------------|---------------------|------------------|--------------------|--------|---------|
| Thermal Resistance | Junction to ambient | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | 15 | |

■ **PACKAGING INFORMATION**

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| SR840L~SR8100L | D1 | Approximate 1.05 | 1250 | 1250 | 12500 | Tape |
| SR840L~SR8100L | C1 | Approximate 1.05 | 250 | 250 | 12500 | Bulk |

■ **CHARACTERISTICS (TYPICAL)**

FIG.1: I_o - T_a Curve

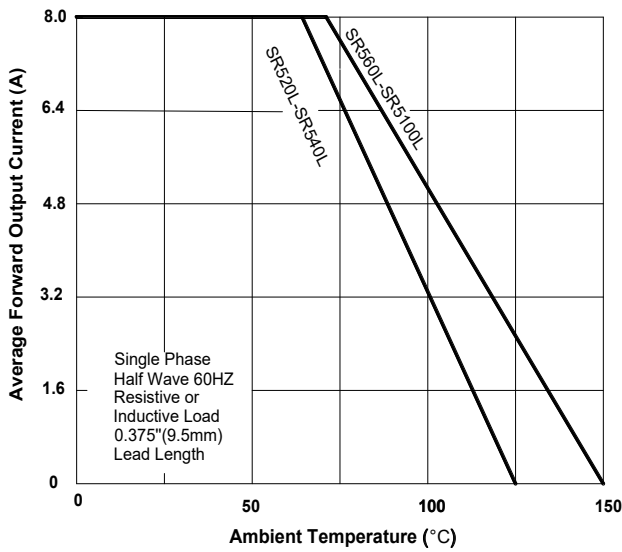


FIG.2: Forward Surge Current Capability

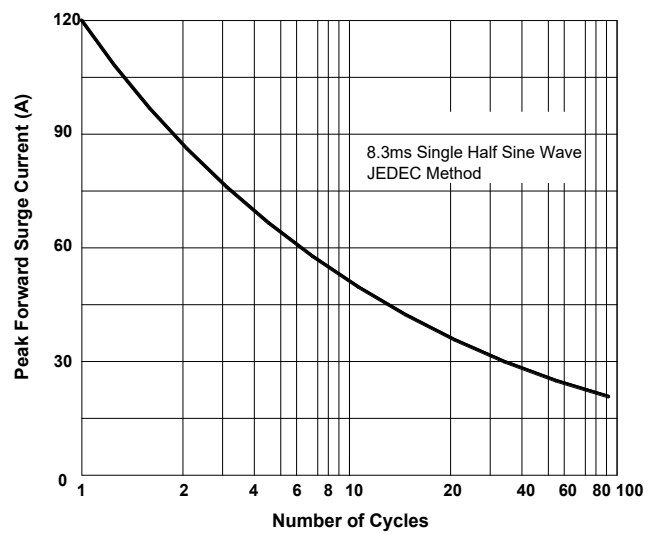


FIG.3: Forward Voltage

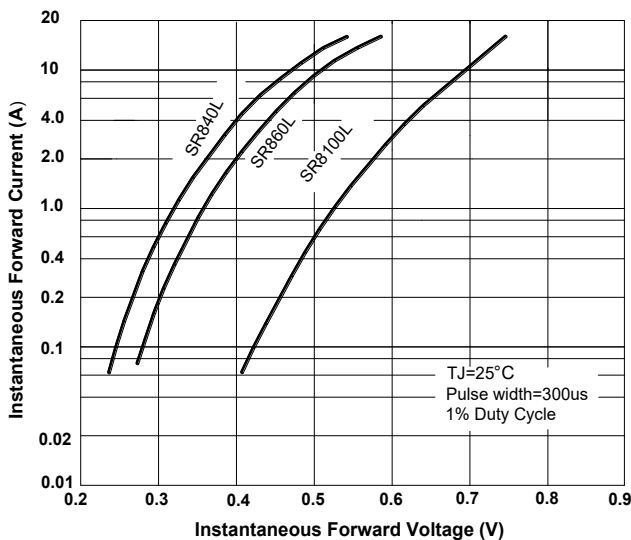
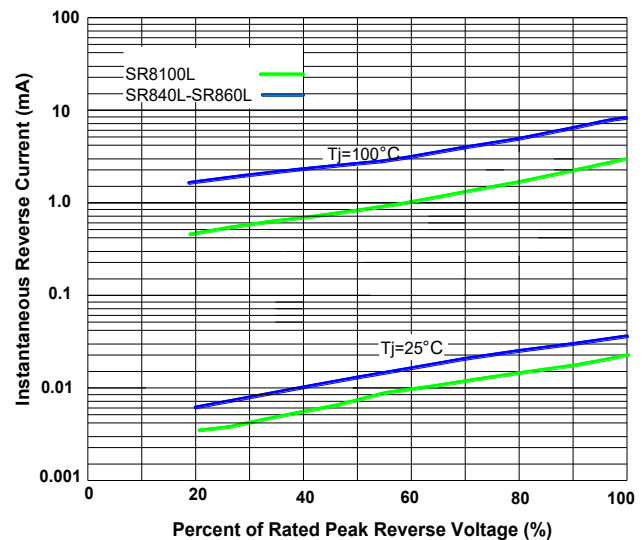
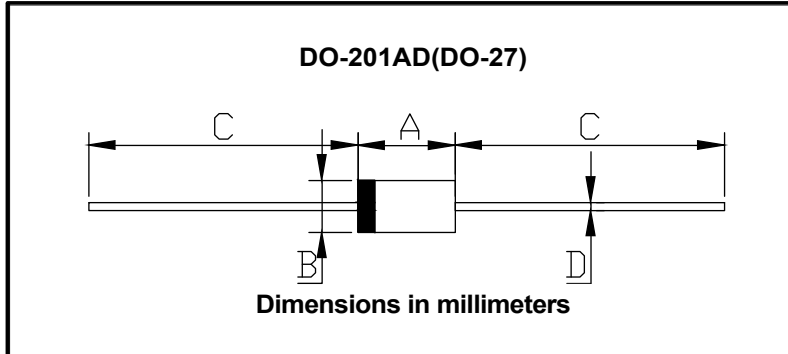


FIG.4: Typical Reverse Characteristics



■ **OUTLINE DIMENSIONS**



| DO-201AD(DO-27) | | |
|------------------------|------|------|
| Dim | Min | Max |
| A | 8.50 | 9.50 |
| B | 5.00 | 5.60 |
| C | 25.4 | / |
| D | 1.2 | 1.3 |