



# THE DATASHEET OF SR3100-HF



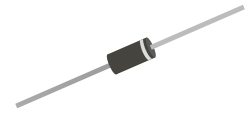
## SR320-HF Thru. SR3200-HF

Forward current: 3.0A

Reverse voltage: 20 to 200V

RoHS Device

Halogen Free

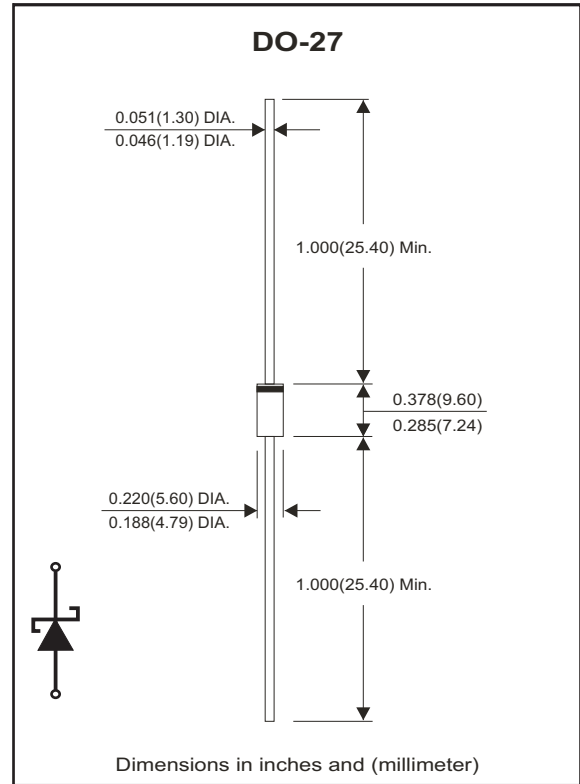


### Features

- Axial lead type devices for through hole design.
- Low power loss, high efficiency.
- High current capability, Low forward voltage drop.
- High surge capability.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free part meets environmental standards of MIL-STD-19500/228

### Mechanical Data

- Case: Molded plastic, DO-201AD/DO-27
- Epoxy: UL94V-0 rate flame retardant.
- Lead: Axial lead, solderable per MIL-STD-202, Method 208 guaranteed.
- Polarity: color band denoted cathode end.
- Weight: 1.10 grams(approx.).



### Maximum Ratings and Electrical Characteristics

Ratings at Ta=25°C unless otherwise noted.  
Single phase, half wave, 60Hz, resistive or inductive loaded.  
For capacitive load, derate current by 20% .

| Parameter                               | Symbol           | SR320 -HF  | SR340 -HF | SR360 -HF | SR3100 -HF | SR3150 -HF | SR3200 -HF | Unit |
|---|------------------|------------|-----------|-----------|------------|------------|------------|------|
| Maximum repetitive peak reverse voltage | V <sub>RRM</sub> | 20         | 40        | 60        | 100        | 150        | 200        | V    |
| Maximum RMS voltage                     | V <sub>RMS</sub> | 14         | 28        | 42        | 70         | 105        | 140        | V    |
| Maximum DC blocking voltage             | V <sub>DC</sub>  | 20         | 40        | 60        | 100        | 150        | 200        | V    |
| Maximum forward voltage @3A, TA=25°C    | V <sub>F</sub>   | 0.45       | 0.50      | 0.70      | 0.81       | 0.87       | 0.90       | V    |
| Operating junction temperature range    | T <sub>J</sub>   | -50 ~ +150 |           |           |            | -50 ~ +175 |            | °C   |

| Parameter                  | Conditions   | Symbol           | MIN. | TYP. | MAX. | Unit |
|----------------------------|--|------------------|------|------|------|------|
| Forward rectified current  | see Fig.1  | I <sub>o</sub>   |      |      | 3.0  | A    |
| Forward surge current      | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I <sub>FSM</sub> |      |      | 70   | A    |
| Reverse current            | V <sub>R</sub> =V <sub>RRM</sub> TA=25°C                             | I <sub>R</sub>   |      |      | 0.5  | mA   |
|                            | V <sub>R</sub> =V <sub>RRM</sub> TA=100°C                            | I <sub>R</sub>   |      |      | 20   | mA   |
| Thermal resistance         | Junction to ambient  | R <sub>θJA</sub> |      | 55   |      | °C/W |
| Diode junction capacitance | f=1MHz and applied 4V DC reverse Voltage                             | C <sub>J</sub>   |      | 250  |      | pF   |
| Storage temperature range  |  | T <sub>STG</sub> | -55  |      | +175 | °C   |

Company reserves the right to improve product design , functions and reliability without notice.

REV:B

## RATING AND CHARACTERISTIC CURVES (SR320-HF Thru. SR3200-HF)

Fig.1 - Typical Forward Current Derating Curve

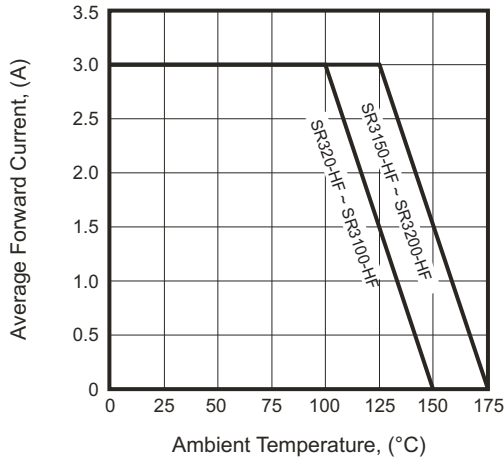


Fig.2 - Typical Forward Characteristics

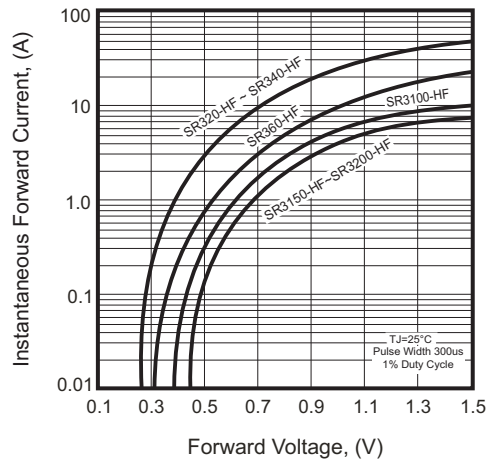


Fig.3 - Maximum Non-repetitive Forward Surge Current

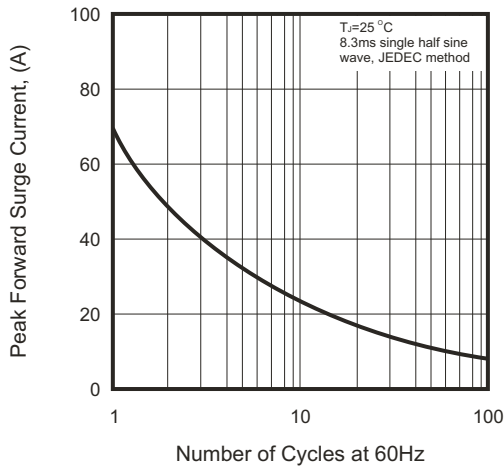


Fig.4 - Typical Junction Capacitance

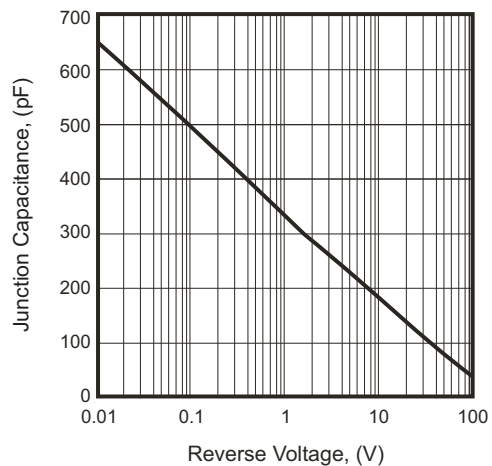
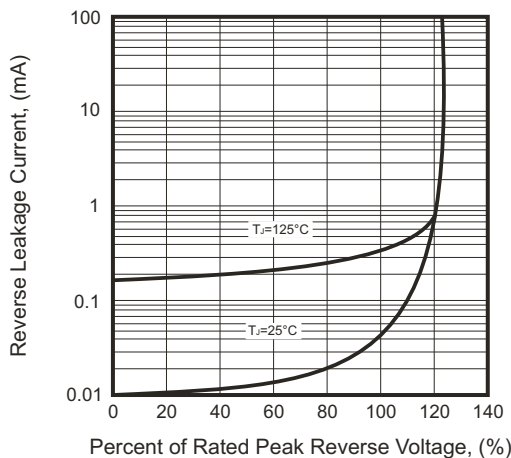
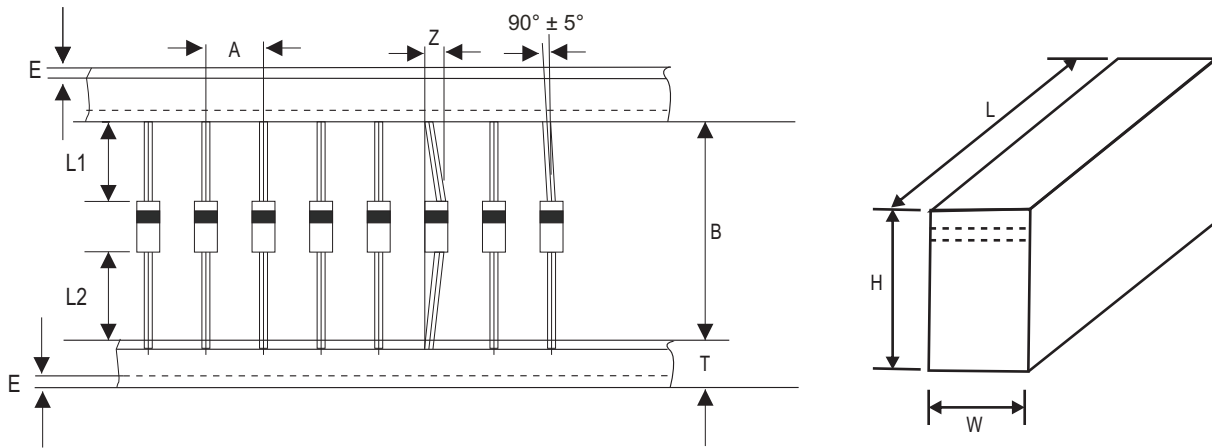


Fig.5 - Typical Reverse Characteristics



## Taping Specification For Axial Lead Diodes

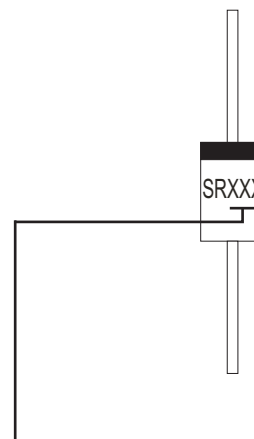


| DO-27 | SYMBOL | A             | B           | Z           | T             | E           |
|-------|--------|---------------|-------------|-------------|---------------|-------------|
|       | (mm)   | 10.00 ± 0.50  | 52.40 (max) | 1.60 (max)  | 6.00 ± 0.40   | 3.00 (max)  |
|       | (inch) | 0.394 ± 0.020 | 2.063 (max) | 0.062 (max) | 0.236 ± 0.016 | 0.118 (max) |

| DO-27 | SYMBOL | L1-L2      | L              | W             | H             |
|-------|--------|------------|----------------|---------------|---------------|
|       | (mm)   | 1.00(max)  | 260 ± 5.00     | 75 ± 5.00     | 145 ± 5.00    |
|       | (inch) | 0.039(max) | 10.236 ± 0.197 | 2.953 ± 0.197 | 5.709 ± 0.197 |

## Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| SR320-HF    | SR32         |
| SR340-HF    | SR34         |
| SR360-HF    | SR36         |
| SR3100-HF   | SR310        |
| SR3150-HF   | SR315        |
| SR3200-HF   | SR320        |



XX / XXX = Product type marking code

## Standard Packaging

| Case Type | AMMO PACK      |                   |
|-----------|----------------|-------------------|
|           | BOX<br>( pcs ) | CARTON<br>( pcs ) |
| DO-27     | 1,200          | 12,000            |

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