# THE DATASHEET OF

# SR304-T

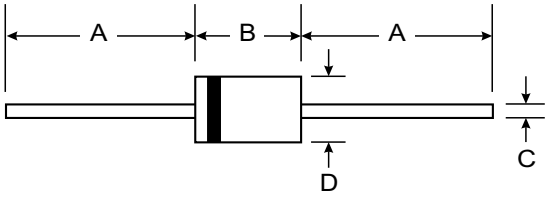
# SR302 - SR306

## HIGH CURRENT SCHOTTKY BARRIER RECTIFIER

NOT RECOMMENDED FOR NEW DESIGNS, USE SB3X0 SERIES

## Features

- Low Forward Drop
- High Surge Current Capacity
- Guard Ring for Transient Protection
- Low Power Loss, High Efficiency




## Mechanical Data

- Case: DO-201AD, Molded Plastic
- Plastic Package: UL Flammability Classification Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Axial lead, Solderable per MIL-STD-202, Method 208
- Polarity: Cathode band
- Weight: 1.2 grams (approx.)

| DO-201AD | | |
|---|---|---|
| **Dim** | **Min** | **Max** |
| **A** | 25.40 | — |
| **B** | 7.20 | 9.50 |
| **C** | 1.20 | 1.30 |
| **D** | 4.80 | 5.30 |
| **All Dimensions in mm** | | |

## Maximum Ratings and Electrical Characteristics @ $T_A$ = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | SR302 | SR303 | SR304 | SR305 | SR306 | Unit |
|---|---|---|---|---|---|---|---|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 20 | 30 | 40 | 50 | 60 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 14 | 21 | 28 | 35 | 42 | V |
| Average Rectified Output Current (Note 1) $T_L$ = 95°C<br>$T_L$ = 100°C | $I_O$ | 3.0<br>— | | | —<br>3.0 | | A |
| Non-repetitive Peak Forward Surge Current 8.3ms half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 80 | | | | | A |
| Forward Voltage @$I_F$ = 3.0A | $V_F$ | 0.55 | | | 0.72 | | V |
| Peak Reverse Current at @ $T_A$ = 25°C<br>Rated DC Blocking Voltage @ $T_A$ = 100°C | $I_R$ | 1.0<br>20 | | | | | mA |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 20 | | | | | °C/W |
| Typical Total Capacitance (Note 3) | $C_T$ | 300 | | | | | pF |
| Operating and Storage Temperature Range | $T_J$, $T_{STG}$ | -65 to +150 | | | | | °C |

Notes: 1. Lead Temperature $T_L$ measured 9.5mm lead length from body.
2. Thermal Resistance from Junction to Ambient Vertical PC Board Mounting, 1.27mm Lead Length.
3. Measured at 1.0MHz and applied reverse voltage of 4.0V.

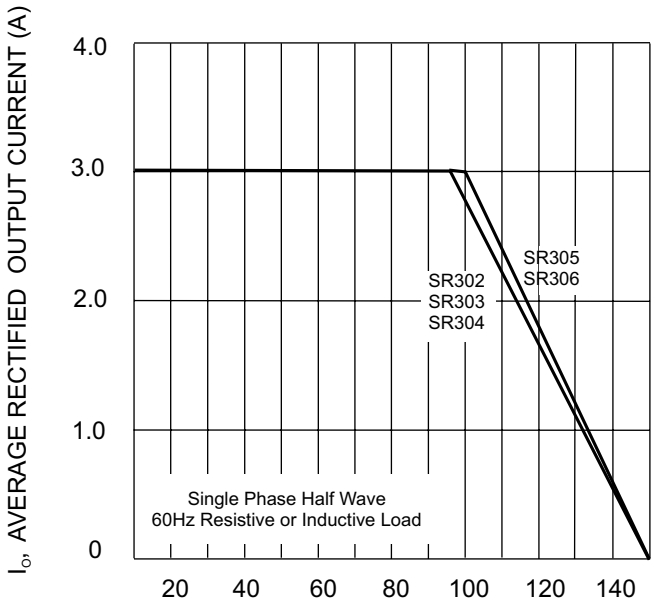



Fig. 1, Forward Current Derating Curve

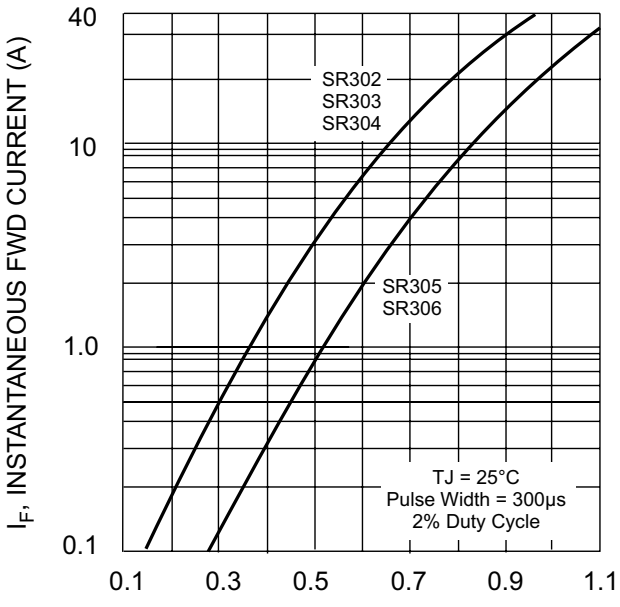



Fig. 2, Typical Forward Characteristics

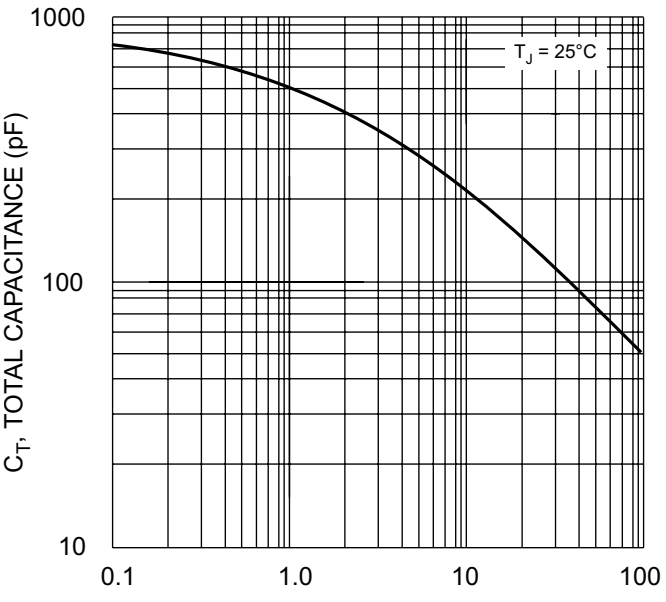



Fig. 3, Typical Total Capacitance

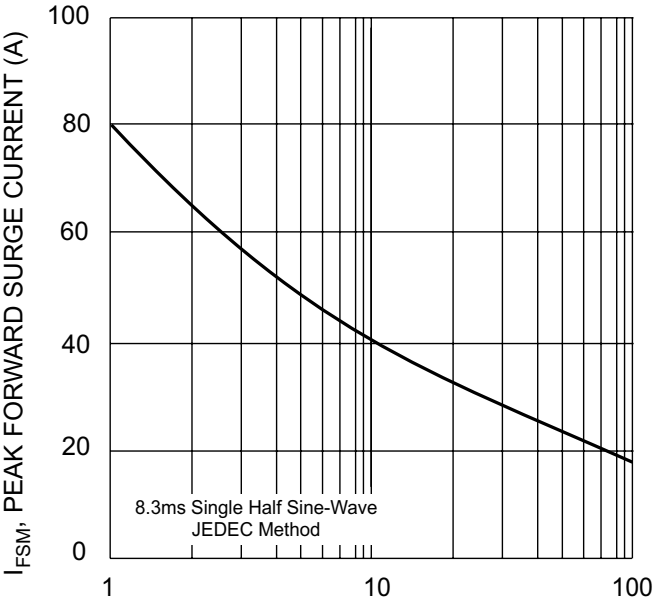



Fig. 4, Max Non-Repetitive Peak Fwd Surge Current

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