

# SR205L-HAF

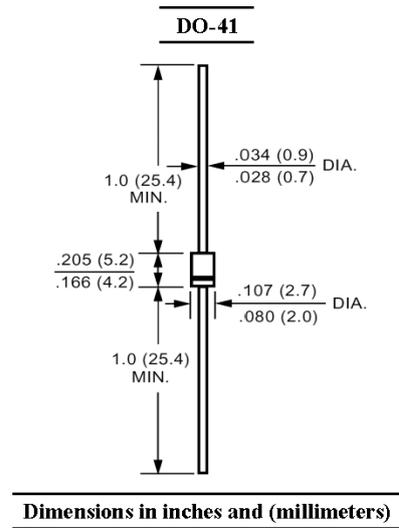
## SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 50 V

Forward Current - 2 A

### Features

- Low Forward Voltage Drop
- Low power loss, high efficiency
- Guardring for overvoltage protection
- High Surge Current Capability
- Halogen and Antimony Free(HAF), RoHS compliant



### Mechanical Data

- **Case:** Molded plastic body, DO-41.
- **Terminals:** Axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any

### Absolute Maximum Ratings and Characteristics

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

|  | Symbols         | SR205L       | Units |
|--|-----------------|--------------|-------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 50           | V     |
| Maximum RMS Voltage  | $V_{RMS}$       | 35           | V     |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 50           | V     |
| Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length                                   | $I_{F(AV)}$     | 2            | A     |
| Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)      | $I_{FSM}$       | 60           | A     |
| Maximum Instantaneous Forward Voltage at 2 A <sup>1)</sup>   | $V_F$           | 0.5          | V     |
| Maximum Reverse Current $T_J = 25^\circ\text{C}$<br>at Rated Reverse Voltage $T_J = 100^\circ\text{C}$ | $I_R$           | 0.5<br>5     | mA    |
| Thermal Resistance, Junction to Case   | $R_{\theta JC}$ | 14           | °C/W  |
| Thermal Resistance Junction to Ambient   | $R_{\theta JL}$ | 21.7         | °C/W  |
| Typical thermal resistance   | $R_{\theta JA}$ | 75           | °C/W  |
| Operating Junction Temperature Range   | $T_j$           | - 55 to +150 | °C    |
| Storage Temperature Range  | $T_{stg}$       | - 55 to +150 | °C    |

<sup>1)</sup> Pulse test:  $t_p = 300\mu\text{s}$ , 1% duty cycle

**TOP DYNAMIC**



Dated : 06/07/2016 GD Rev:01

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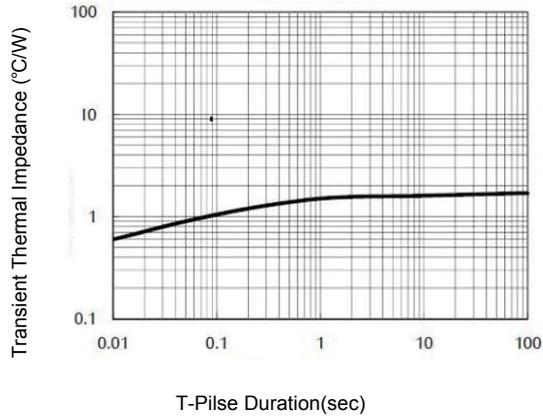


Figure 1. Typical Transient Thermal Charac Teristics

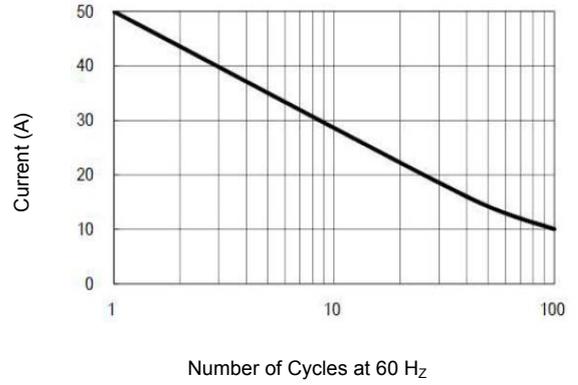


Figure 2. Maximum Non-Repetitive Forward Surge Current

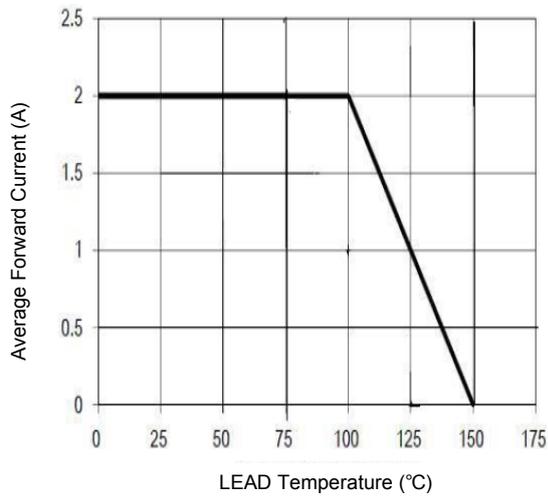


Figure 3. Forward Current Derating Curve

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ISO14001 : 2004 Certificate No. 121505007 ISO 9001 : 2008 Certificate No. 50114012 OHSAS 18001 : 2007 Certificate No. 0915190206 IECQ CC 080000 Certificate No. E2241000741002

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