

Technical Data
Data Sheet 4963, Rev.-

SILICON SCHOTTKY RECTIFIER DIE
Low Forward Voltage Drop (200 °C T_J Operation)

Applications:

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

Features:

- Soft Reverse Recovery at Low and High Temperature
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability
- Guaranteed Reverse Avalanche Characteristics
- Electrically / Mechanically Stable during and after Packaging

Maximum Ratings⁽¹⁾:

| Characteristics | Symbol | Condition | Max. | Units |
|--|--------------------|--|-------------|-------|
| Peak Inverse Voltage | V _{RWM} | - | 150 | V |
| Max. Average Forward Current | I _{F(AV)} | 50% duty cycle, rectangular wave form | 7.5 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I _{FSM} | 8.3 ms, half Sine wave ⁽¹⁾ | 140 | A |
| Non-Repetitive Avalanche Energy | E _{AS} | T _J = 25 °C, I _{AS} = 2.0 A, L = 6.5 mH | 13.0 | mJ |
| Repetitive Avalanche Current | I _{AR} | I _{AS} decay linearly to 0 in 1 μs f limited by T _J max V _A =1.5V _R | 2.0 | A |
| Max. Junction Temperature | T _J | - | -65 to +200 | °C |
| Max. Storage Temperature | T _{stg} | - | -65 to +200 | °C |

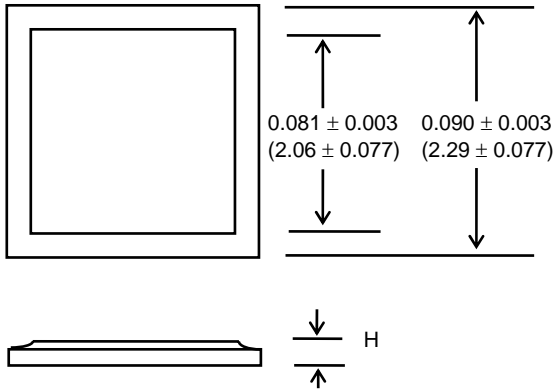
Electrical Characteristics⁽¹⁾:

| Characteristics | Symbol | Condition | Max. | Units |
|---------------------------|-----------------|---|------|-------|
| Max. Forward Voltage Drop | V _{F1} | @ 7.5A, Pulse, T _J = 25 °C | 0.84 | V |
| | V _{F2} | @ 7.5A, Pulse, T _J = 125 °C | 0.68 | V |
| Max. Reverse Current | I _{R1} | @V _R = 150V, Pulse, T _J = 25 °C | 0.25 | mA |
| | I _{R2} | @V _R = 150V, Pulse, T _J = 125 °C | 4.0 | mA |
| Max. Junction Capacitance | C _T | @V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz, V _{SIG} = 50mV (p-p) | 250 | pF |

(1) in SHD package

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Mechanical Dimensions: In Inches / mm



Bottom side metalization Ag - 30 kÅ minimum.

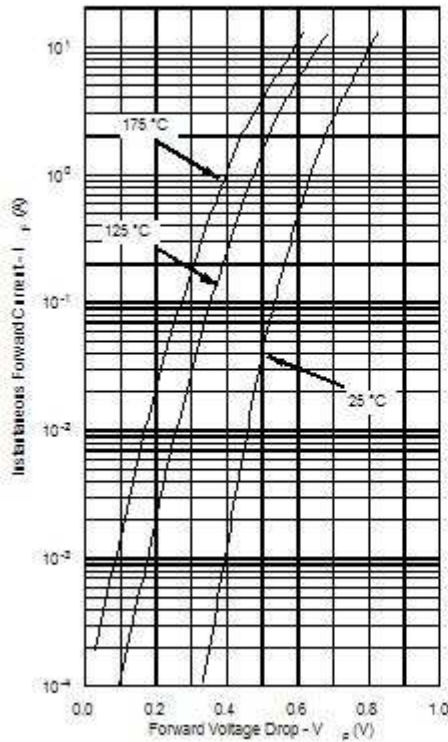
Top side metalization Al - 25 kÅ minimum
or Ag - 30 kÅ minimum.

Bottom side is cathode, top side is anode.

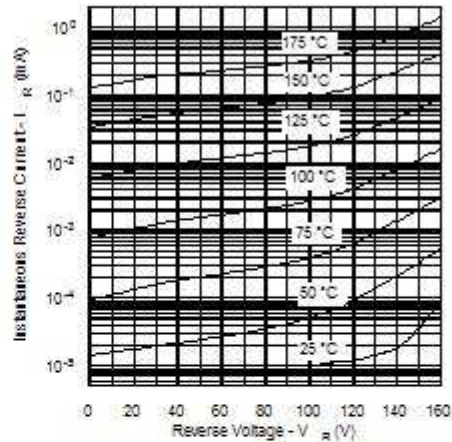
Dimension H = 0.0105 ± 0.001 (0.27 ± 0.026) for Al top;

Dimension H = 0.0155 ± 0.001 (0.39 ± 0.026) for Ag top.

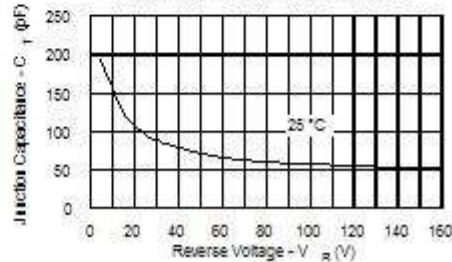
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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