

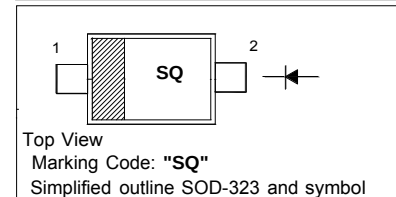
## Surface Mount Schottky Barrier Diode

### Features

- Low forward voltage
- High conductance

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



### Absolute Maximum Ratings ( $T_a = 25\text{ }^{\circ}\text{C}$ )

| Parameter                                                                     | Symbol          | Value         | Unit                 |
|-------------------------------------------------------------------------------|-----------------|---------------|----------------------|
| Peak Repetitive Reverse Voltage                                               | $V_{RRM}$       | 40            | V                    |
| Reverse Voltage                                                               | $V_R$           | 40            | V                    |
| Average Rectified Forward Current                                             | $I_{F(AV)}$     | 500           | mA                   |
| Non-Repetitive Peak Forward Surge Current<br>(Half Wave, Single Phase, 60 Hz) | $I_{FSM}$       | 5.5           | A                    |
| Thermal Resistance Junction to Lead <sup>1)</sup>                             | $R_{\theta JL}$ | 118           | $^{\circ}\text{C/W}$ |
| Thermal Resistance Junction to Ambient <sup>2)</sup>                          | $R_{\theta JA}$ | 206           | $^{\circ}\text{C/W}$ |
| Operating Junction Temperature Range                                          | $T_j$           | - 65 to + 150 | $^{\circ}\text{C}$   |
| Storage Temperature Range                                                     | $T_{stg}$       | - 65 to + 150 | $^{\circ}\text{C}$   |

1) Device mounted on FR-4 PCB 0.013 mm.

2) 1 inch" pad size (1 X 0.5 inch for each lead ) on FR4 board.

### Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

| Parameter                                                                                                                                                                                           | Symbol | Max.                         | Unit                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------|--------------------------------------------|
| Forward Voltage<br>at $I_F = 0.5\text{ A}$<br>at $I_F = 1\text{ A}$<br>at $I_F = 0.5\text{ A}$ , $T_a = 100\text{ }^{\circ}\text{C}$<br>at $I_F = 1\text{ A}$ , $T_a = 100\text{ }^{\circ}\text{C}$ | $V_F$  | 0.51<br>0.62<br>0.46<br>0.61 | V                                          |
| Reverse Current<br>at $V_R = 20\text{ V}$<br>at $V_R = 40\text{ V}$<br>at $V_R = 20\text{ V}$ , $T_a = 100\text{ }^{\circ}\text{C}$<br>at $V_R = 40\text{ V}$ , $T_a = 100\text{ }^{\circ}\text{C}$ | $I_R$  | 10<br>20<br>5<br>13          | $\mu\text{A}$<br>$\mu\text{A}$<br>mA<br>mA |

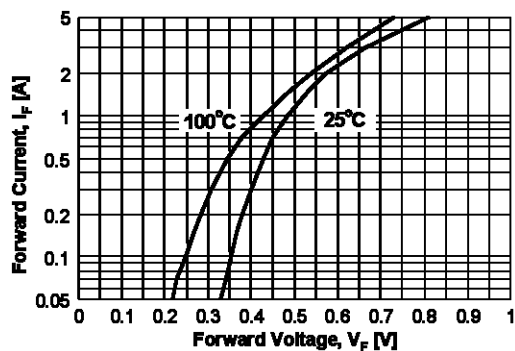


Figure 1. Forward Voltage Characteristics

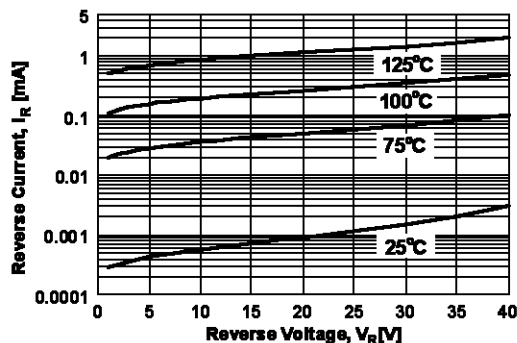


Figure 2. Reverse Current vs Reverse Voltage

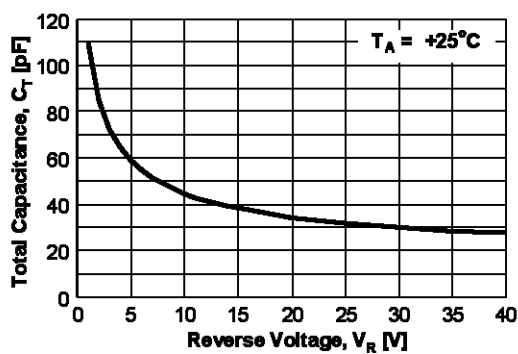


Figure 3. Total Capacitance