

## SCHOTTKY BARRIER DIODE

### Features

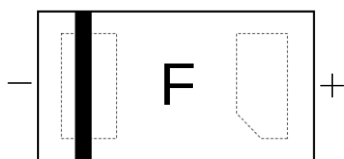
- Low VF
- High reliability
- We declare that the material of product compliance with RoHS requirements and Halogen Free
- S-prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable



### Application

- Low current rectification

Schematic diagram



Marking and pin assignment



Pb-Free



Halogen-Free

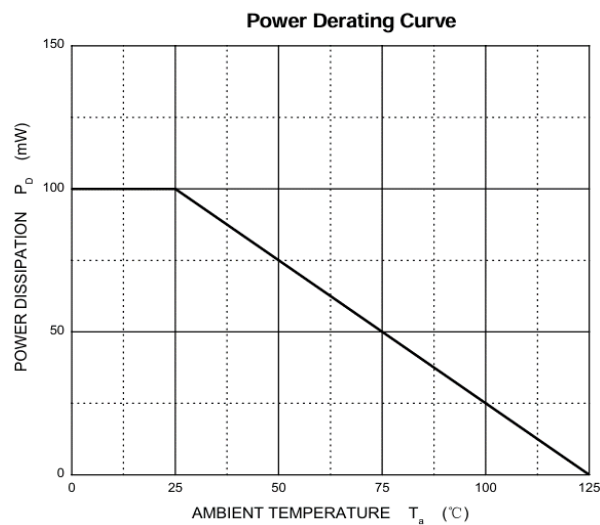
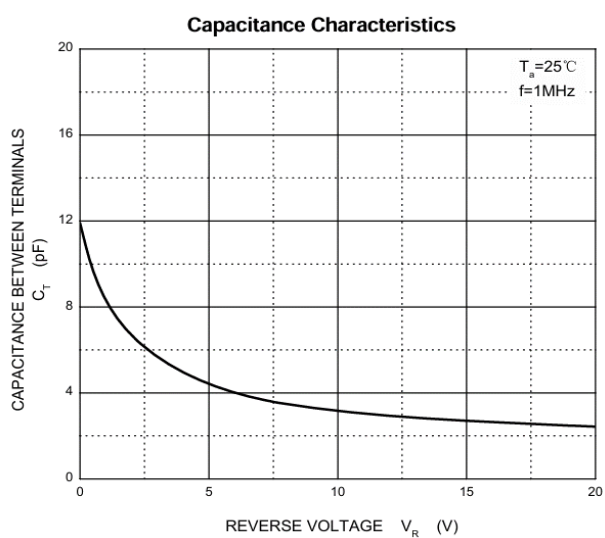
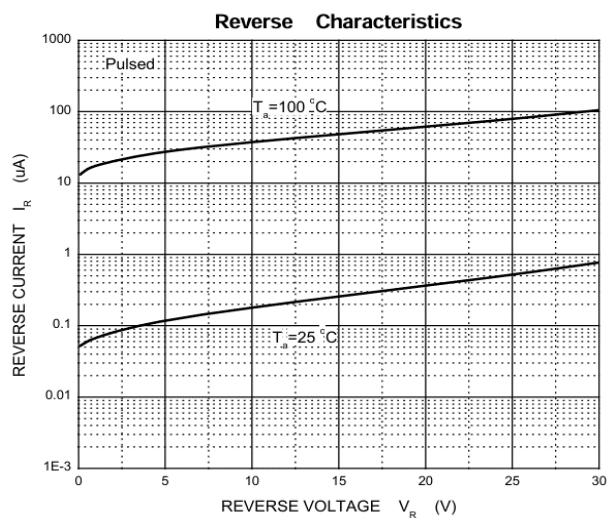
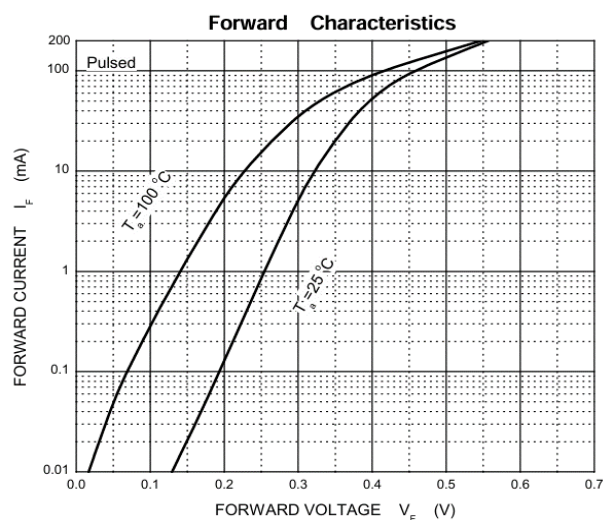
### Maximum Ratings( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

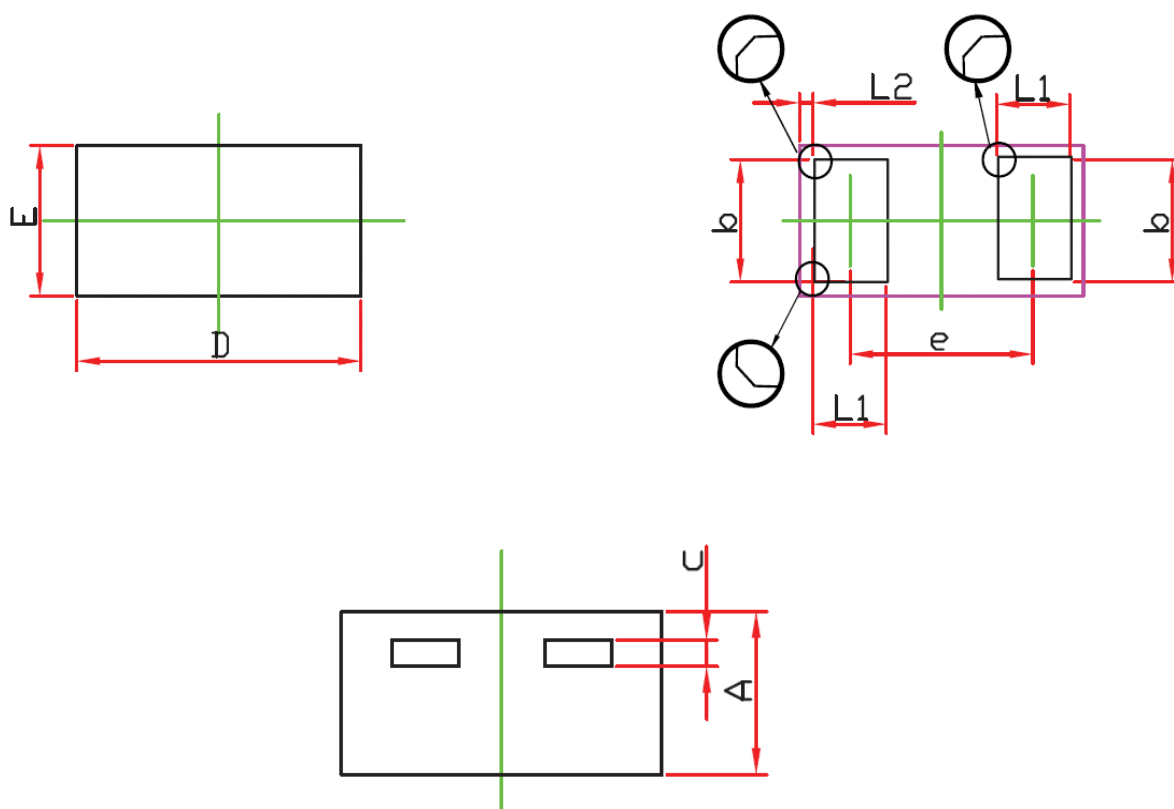
| Symbol          | Parameter                                | Value    | Unit                        |
|-----------------|------------------------------------------|----------|-----------------------------|
| $V_R$           | Reverse voltage (DC)                     | 30       | V                           |
| $I_O$           | Average rectified forward current        | 100      | mA                          |
| $I_{FSM}$       | Forward current surge peak (60Hz · 1cyc) | 500      | mA                          |
| $P_D$           | Maximum Power Dissipation                | 100      | mW                          |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient  | 1000     | $^{\circ}\text{C}/\text{W}$ |
| $T_J$           | Junction temperature                     | -40~+125 | $^{\circ}\text{C}$          |
| $T_{stg}$       | Storage temperature                      | -55~+150 | $^{\circ}\text{C}$          |

### Electrical Characteristics ( $T_J=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol     | Parameter       | Condition           | Min | Typ | Max  | Unit          |
|------------|-----------------|---------------------|-----|-----|------|---------------|
| $V_{(BR)}$ | Reverse voltage | $I_R=10\mu\text{A}$ | 30  | --  | --   | V             |
| $I_R$      | Reverse current | $V_R=10\text{V}$    | --  | --  | 10   | $\mu\text{A}$ |
| $V_F$      | Forward voltage | $I_F=10\text{mA}$   | --  | --  | 0.38 | V             |
|            |                 | $I_F=100\text{mA}$  | --  | --  | 0.6  | V             |

**Typical Operating Characteristics**



**DFN0603-2L Package information**


| Symbol    | Dimensions in Millimeters(mm) |              | Dimensions In Inches |              |
|-----------|-------------------------------|--------------|----------------------|--------------|
|           | Min                           | Max          | Min                  | Max          |
| <b>A</b>  | <b>0.270</b>                  | <b>0.340</b> | <b>0.010</b>         | <b>0.013</b> |
| <b>D</b>  | <b>0.550</b>                  | <b>0.670</b> | <b>0.021</b>         | <b>0.026</b> |
| <b>E</b>  | <b>0.250</b>                  | <b>0.370</b> | <b>0.009</b>         | <b>0.015</b> |
| <b>b</b>  | <b>0.200</b>                  | <b>0.350</b> | <b>0.008</b>         | <b>0.014</b> |
| <b>c</b>  | <b>0.050 REF.</b>             |              | <b>0.002 REF.</b>    |              |
| <b>e</b>  | <b>0.350</b>                  | <b>0.435</b> | <b>0.014</b>         | <b>0.017</b> |
| <b>L1</b> | <b>0.125</b>                  | <b>0.230</b> | <b>0.005</b>         | <b>0.009</b> |
| <b>L2</b> | <b>0.030 REF.</b>             |              | <b>0.001 REF.</b>    |              |