

## Small Signal Schottky Barrier Diodes

### Features

- Low forward voltage drop
- Guard ring construction for transient protection
- Low reverse recovery time
- Low reverse capacitance
- RoHS compliant



DO-35



### Mechanical Data

|                   |                                         |
|-------------------|-----------------------------------------|
| <b>Case:</b>      | Molded Glass DO-35                      |
| <b>Terminals:</b> | Solderable per MIL-STD-202E, Method 208 |
| <b>Polarity:</b>  | Color band denotes cathode end          |
| <b>Weight:</b>    | 0.13 grams                              |

### Maximum Ratings and Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless noted otherwise)

| Symbol                 | Parameter                            | SD103A  | SD103B  | SD103C  | Units | Condition                                                                |
|------------------------|--------------------------------------|---------|---------|---------|-------|--------------------------------------------------------------------------|
| <b>V<sub>RRM</sub></b> | Max. Peak Repetitive Reverse Voltage | 40      | 30      | 20      | V     |                                                                          |
| <b>V<sub>RMS</sub></b> | Max. RMS Reverse Voltage             | 28      | 21      | 14      | V     |                                                                          |
| <b>I<sub>AV</sub></b>  | Max. Average Rectified Current       | 0.35    |         |         | A     |                                                                          |
| <b>I<sub>FSM</sub></b> | Peak Forward Surge Current (t≤0.3ms) | 15      |         |         | A     |                                                                          |
| <b>P<sub>D</sub></b>   | Power Dissipation Derate Above 25°C  | 400     |         |         | mW    |                                                                          |
| <b>V<sub>F</sub></b>   | Max. Forward Voltage                 | 0.37    |         |         | V     | I <sub>F</sub> =20mA                                                     |
|                        |                                      | 0.60    |         |         |       | I <sub>F</sub> =200mA                                                    |
| <b>I<sub>R</sub></b>   | Max. Reverse Current                 | 5.0@30V | 5.0@20V | 5.0@10V | μA    |                                                                          |
| <b>C<sub>J</sub></b>   | Typ. Junction Capacitance            | 50      |         |         | pF    | V <sub>R</sub> =0V, f=1MHz                                               |
| <b>T<sub>rr</sub></b>  | Typ. Reverse Recovery Time           | 10      |         |         | ns    | From I <sub>F</sub> =50mA to I <sub>R</sub> =200mA, R <sub>L</sub> =100Ω |
| <b>R<sub>θJA</sub></b> | Max. Thermal Resistance              | 250     |         |         | °C/W  |                                                                          |

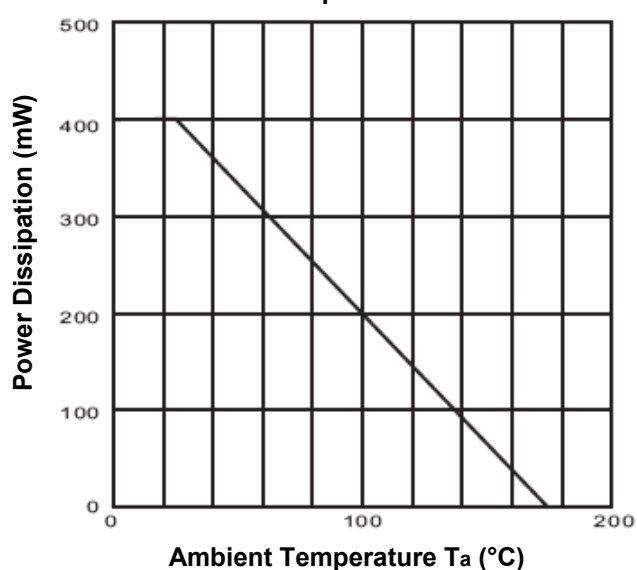
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## SD103A - SD103C

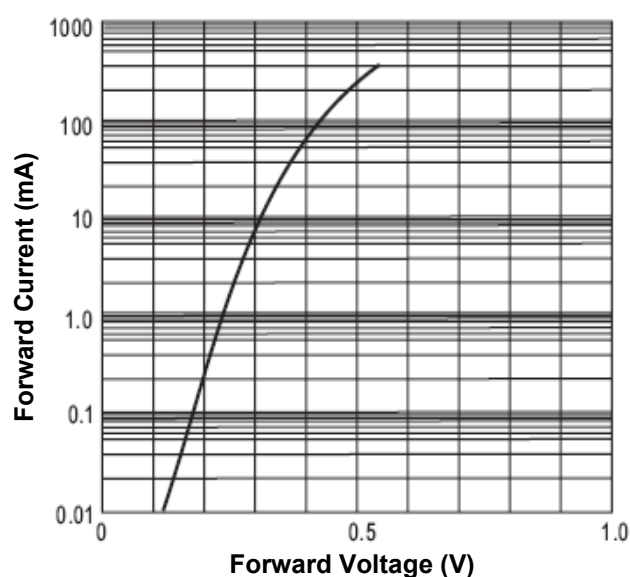
| Symbol           | Parameter                 | SD103A     | SD103B | SD103C | Units | Condition |
|------------------|---------------------------|------------|--------|--------|-------|-----------|
| T <sub>STG</sub> | Storage Temperature Range | -65 to 175 |        |        | °C    |           |

### Typical Characteristics Curves *(T<sub>A</sub>=25°C unless noted otherwise)*

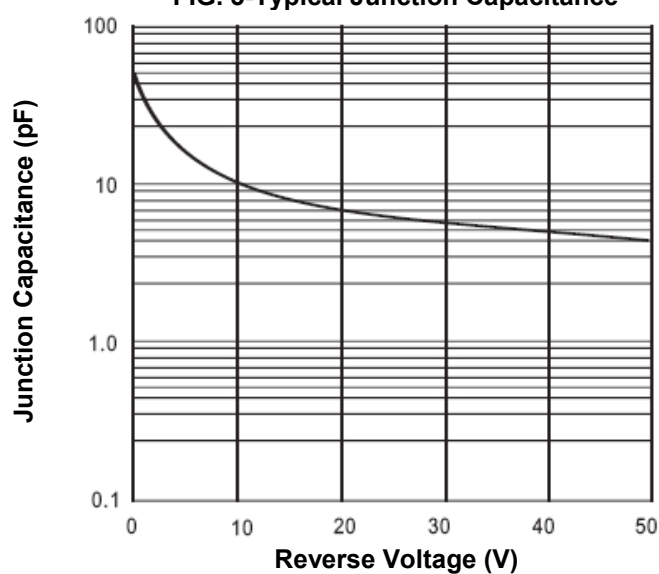
**Fig.1- Admissible Power Dissipation versus Ambient Temperature**



**Fig. 2-Typical Forward Characteristics**



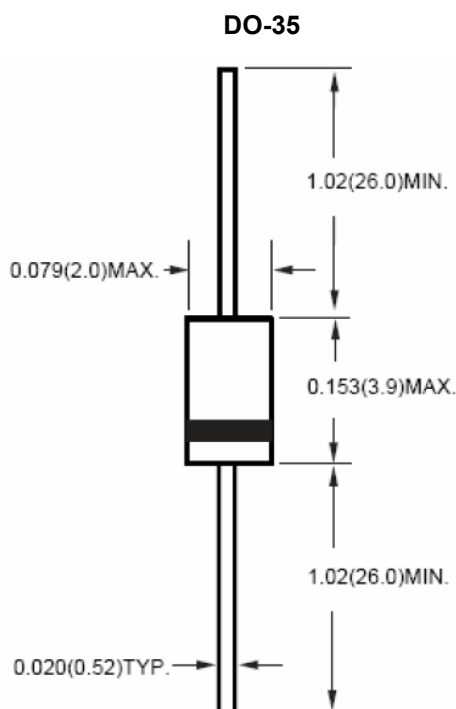
**FIG. 3-Typical Junction Capacitance**



# Small Signal Schottky Barrier Diodes

## SD103A - SD103C

### Dimensions in inch (mm)



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