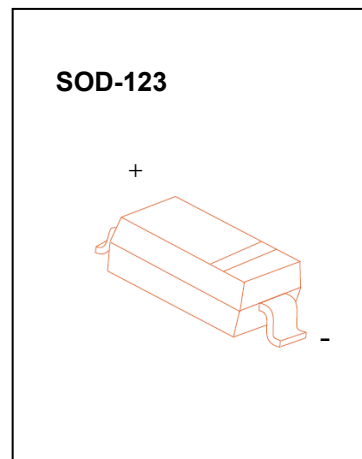


## SCHOTTKY DIODES

### FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time

MARKING: SD101AW: S1  
SD101BW: S2  
SD101CW: S3



### Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>A</sub>=25°C

| Parameter                                                                   | Symbol                          | SD101AW   | SD101BW | SD101CW | Unit    |
|-----------------------------------------------------------------------------|---------------------------------|-----------|---------|---------|---------|
| Peak Repetitive Peak reverse voltage<br>Working Peak<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 60        | 50      | 40      | V       |
| RMS Reverse Voltage                                                         | $V_{R(RMS)}$                    | 42        | 35      | 28      | V       |
| Forward Continuous Current                                                  | $I_{FM}$                        | 15        |         |         | mA      |
| Repetitive Peak Forward Current @t<1.0s<br>@t=10μs                          | $I_{FRM}$                       | 50<br>2.0 |         |         | mA<br>A |
| Power Dissipation                                                           | $P_d$                           | 500       |         |         | mW      |
| Thermal Resistance Junction to Ambient                                      | $R_{\theta JA}$                 | 250       |         |         | °C/W    |
| Storage temperature                                                         | $T_{STG}$                       | -65~+150  |         |         | °C      |

### Electrical Ratings @T<sub>A</sub>=25°C

| Parameter                                                                         | Symbol      | Min.           | Typ. | Max.                                         | Unit | Conditions                                                                          |
|-----------------------------------------------------------------------------------|-------------|----------------|------|----------------------------------------------|------|-------------------------------------------------------------------------------------|
| Reverse Breakdown Voltage<br>SD101AW<br>SD101BW<br>SD101CW                        | $V_{(BR)R}$ | 60<br>50<br>40 |      |                                              | V    | $I_R=10\mu A$<br>$I_R=10\mu A$<br>$I_R=10\mu A$                                     |
| Forward voltage<br>SD101AW<br>SD101BW<br>SD101CW<br>SD101AW<br>SD101BW<br>SD101CW | $V_F$       |                |      | 0.41<br>0.40<br>0.39<br>1.00<br>0.95<br>0.90 | V    | $I_F=1.0mA$<br>$I_F=1.0mA$<br>$I_F=1.0mA$<br>$I_F=15mA$<br>$I_F=15mA$<br>$I_F=15mA$ |
| Reverse current<br>SD101AW<br>SD101BW<br>SD101CW                                  | $I_{RM}$    |                |      | 0.2                                          | μA   | $V_R=50V$<br>$V_R=40V$<br>$V_R=30V$                                                 |
| Capacitance between terminals<br>SD101AW<br>SD101BW<br>SD101CW                    | $C_T$       |                |      | 2.0<br>2.1<br>2.2                            | pF   | $V_R=0V, f=1.0MHz$                                                                  |
| Reverse Recovery Time                                                             | $t_{rr}$    |                |      | 1.0                                          | ns   | $I_F=I_R=5mA$<br>$I_{rr}=0.1I_R, R_L=100\Omega$                                     |

## Typical Characteristics

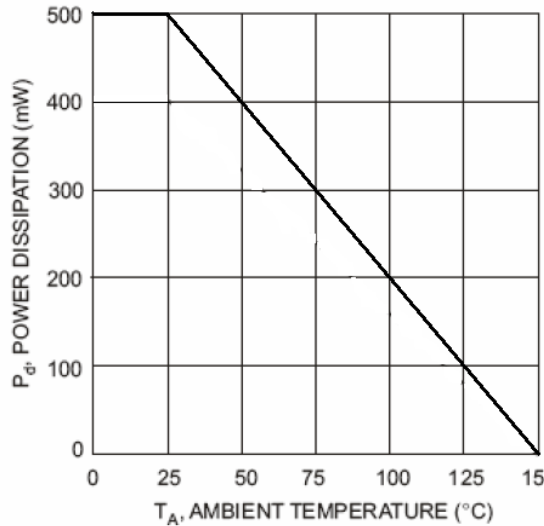


Fig. 1 Power Derating Curve

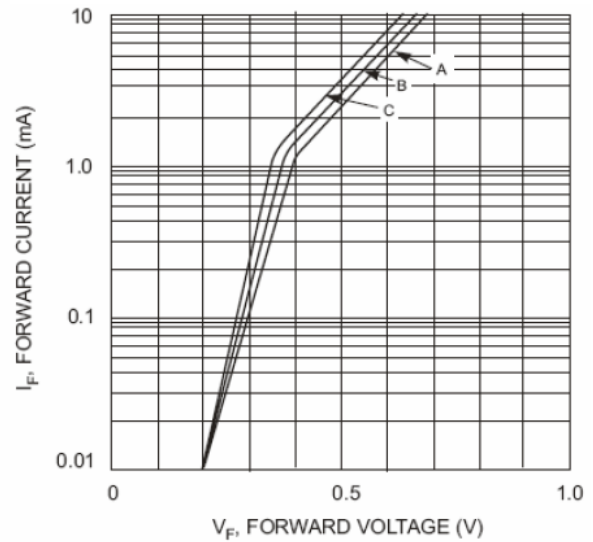


Fig. 2 Typical Forward Characteristic

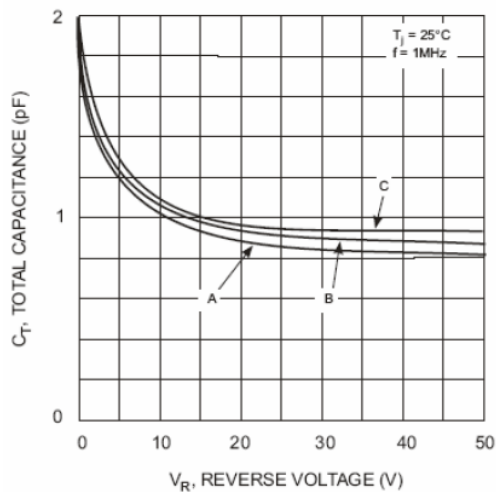


Fig. 3 Typical Total Capacitance vs Reverse Voltage

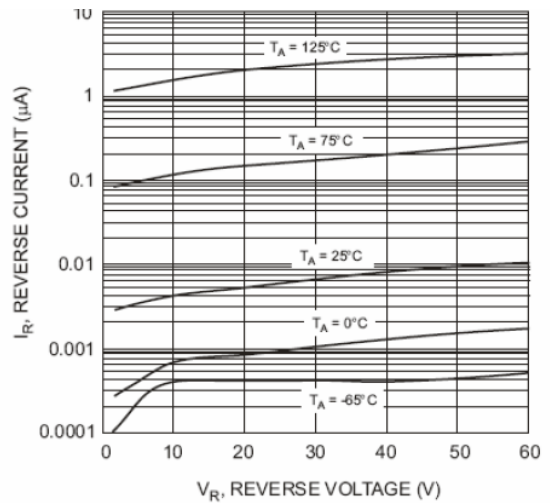


Fig. 4 Typical Reverse Characteristics