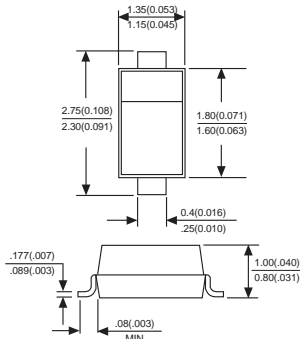


SD101AWS-SD101CWS

SCHOTTKY DIODES

SOD-323



Dimensions in millimeters and (inches)

FEATURES

- ◆ Low forward voltage drop
- ◆ Guard ring construction for transient protection
- ◆ Negligible reverse recovery time

MECHANICAL DATA

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Marking: SD101AWS:S1, SD101BWS:S2, SD101CWS:S3

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum ratings and electrical characteristics, Single diode @ $T_A=25^\circ\text{C}$

| PARAMETER | SYMBOLS | SD101AWS | SD101BWS | SD101CWS | UNITS |
|---|-----------------|----------|-------------|----------|---------------------------|
| Peak repetitive peak reverse voltage | V_{RRM} | | | | VOLTS |
| Working peak reverse voltage | V_{RMS} | 60 | 50 | 40 | |
| DC Blocking voltage | V_{DC} | | | | |
| RMS Reverse voltage | $V_{R(RMS)}$ | 42 | 35 | 28 | V |
| Forward continuous current | I_{FM} | | 15 | | mA |
| Repetitive peak forward current @ $t < 1.0s$ @ $t = 10\mu s$ | I_{FRM} | | 50 2.0 | | mA A |
| Power dissipation | P_d | | 200 | | mW |
| Thermal resistance junction to ambient | $R_{\theta JA}$ | | 300 | | $^\circ\text{C}/\text{W}$ |
| Storage temperature | T_{STG} | | -65 to +125 | | $^\circ\text{C}$ |

Electrical ratings @ $T_A=25^\circ\text{C}$

| PARAMETER | SYMBOLS | Min. | Typ. | Max. | Unit | Conditions |
|-------------------------------|--|-------------|----------------|--|---------|---|
| Reverse breakdown voltage | SD101AWS SD101BWS SD101CWS | $V_{(BR)R}$ | 60 50 40 | | V | $I_R=10\mu A$ $I_R=10\mu A$ $I_R=10\mu A$ |
| Forward voltage | SD101AWS SD101BWS SD101CWS SD101AWS SD101BWS SD101CWS | V_F | | 0.41 0.40 0.39 1.00 0.95 0.90 | V | $I_F=1.0mA$ $I_F=1.0mA$ $I_F=1.0mA$ $I_F=15mA$ $I_F=15mA$ $I_F=15mA$ |
| Reverse current | SD101AWS SD101BWS SD101CWS | I_{RM} | | 0.2 | μA | $V_R=50V$ $V_R=40V$ $V_R=30V$ |
| Capacitance between terminals | SD101AWS SD101BWS SD101CWS | C_T | | 2.0 2.1 2.2 | pF | $V_R=0V, f=1.0MHz$ |
| Reverse recovery time | | t_{rr} | | 1.0 | ns | $I_F=I_R=5mA$ $I_{rr}=0.1X I_R, R_L=100\Omega$ |

RATINGS AND CHARACTERISTIC CURVES SD101AWS-SD101CWS

FIG. 1- POWER DERATING CURVE

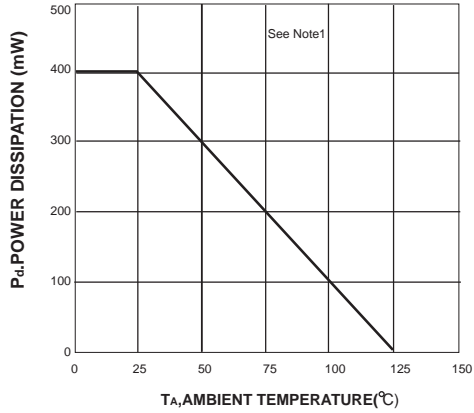


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

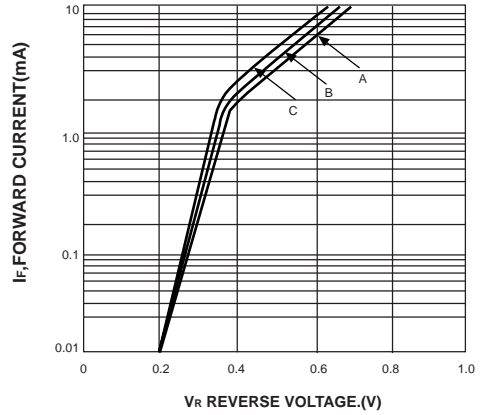


FIG.3- TYPICAL TOTAL CAPACITANCE VS REVERSE VOLTAGE

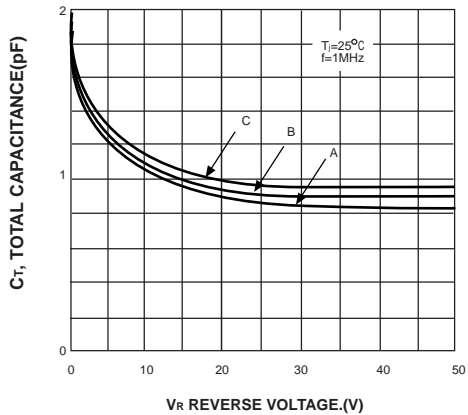


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

