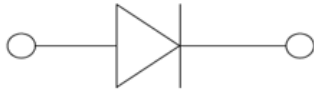


High Speed Switching Diode



SOD323

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_R 75V
- I_{FAV} 150mA
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- Extreme fast switches

Mechanical Data

- **Case:** SOD323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** T4

■ Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | CONDITIONS | VALUE |
|---------------------------------|------------|------------------|--------------------|-------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | V | | 100 |
| Peak Forward Surge Current | I_{FSM} | A | $t_p=1\mu\text{s}$ | 2 |
| Average Forward Current | I_{FAV} | mA | | 150 |
| Power Dissipation | P_{tot} | mW | | 200 |
| Thermal Resistance | R_{thJA} | K/W | | 625 |
| Maximum Junction Temperature | T_j | $^\circ\text{C}$ | | -55 to +150 |
| Storage Temperature Range | T_{stg} | $^\circ\text{C}$ | | -55 to +150 |

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | CONDITIONS | VALUE |
|-------------------------------|----------|---------------|---|-------|
| Maximum Forward Voltage | V_F | V | $I_F=10\text{mA}$ | 1.0 |
| Maximum Reverse Current | I_R | nA | $V_R=20\text{V}$ | 25 |
| | I_R | μA | $V_R=75\text{V}$ | 1.0 |
| Minimum Breakdown Voltage | V_R | V | $I_R=1\mu\text{A}$ | 75 |
| Maximum Diode Capacitance | C_D | pF | $V_R=V_F=0\text{V}$, $f=1\text{MHz}$ | 4 |
| Maximum Reverse Recovery Time | t_{rr} | ns | $I_F=50\text{mA}$, $I_{rr}=0.1I_R$, $R_L=100\Omega$ | 4 |

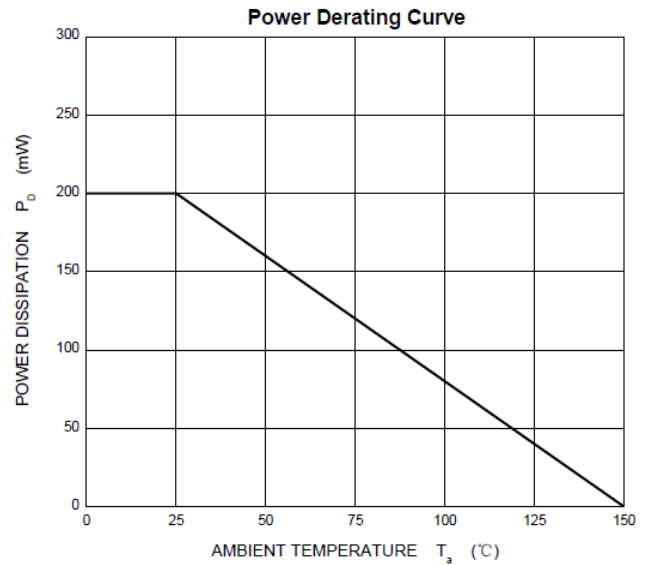
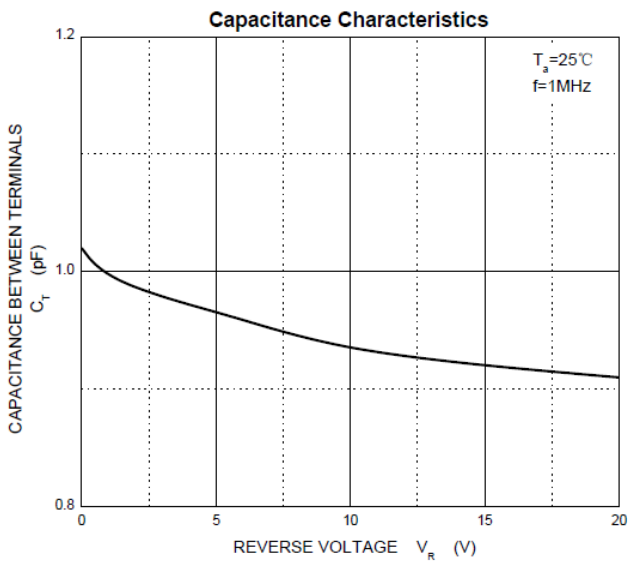
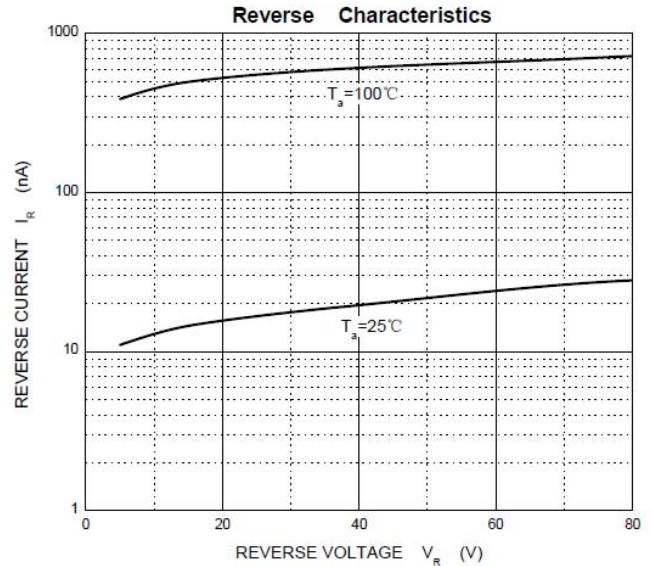
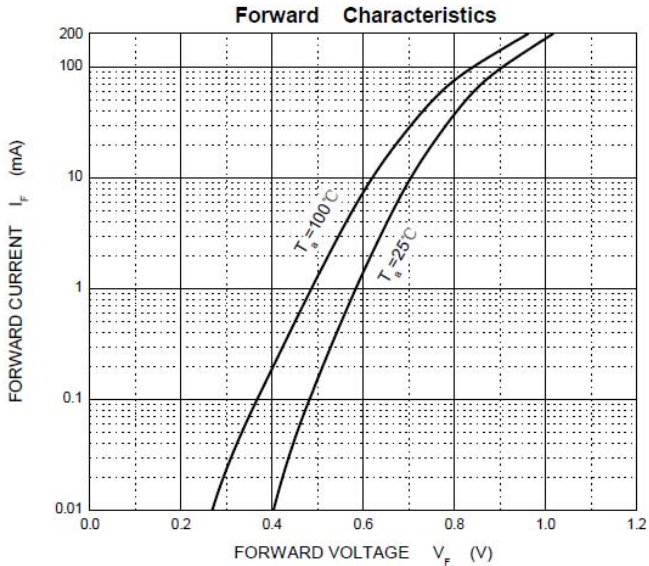


1N4148WSQ

Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| 1N4148WSQ | F2 | Approximate 0.004 | 3000 | 30000 | 120000 | 7" reel |

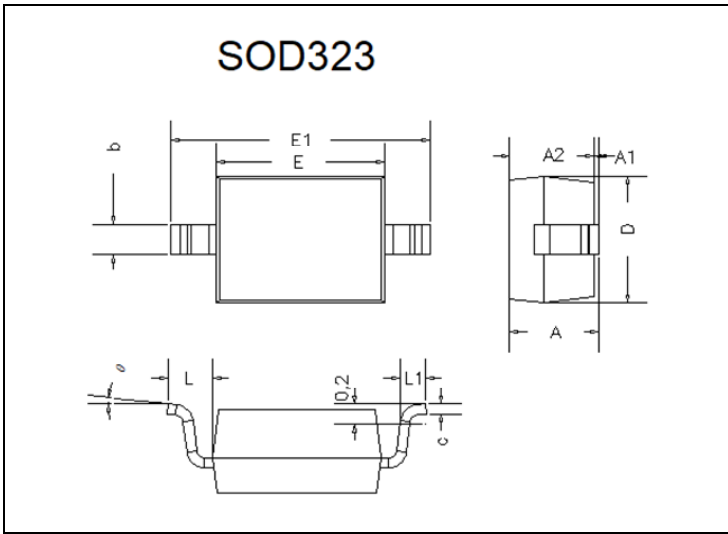
Characteristics (Typical)





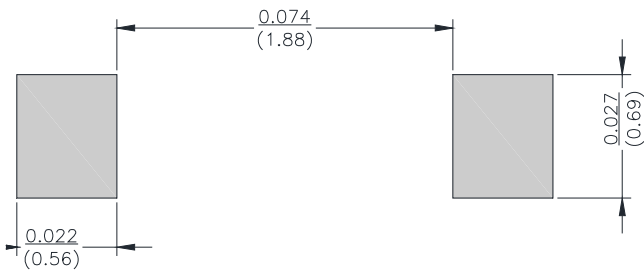
1N4148WSQ

■ Outline Dimensions



| DIM | INCHES | | MM | | NOTE |
|----------|----------|-------|----------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | - | 0.039 | - | 1.00 | |
| A1 | 0.000 | 0.004 | 0.00 | 0.10 | |
| A2 | 0.031 | 0.035 | 0.80 | 0.90 | |
| b | 0.010 | 0.016 | 0.25 | 0.40 | |
| c | 0.003 | 0.007 | 0.08 | 0.17 | |
| D | 0.047 | 0.055 | 1.20 | 1.40 | |
| E | 0.063 | 0.071 | 1.60 | 1.80 | |
| E1 | 0.098 | 0.106 | 2.50 | 2.70 | |
| L | 0.019REF | | 0.475REF | | |
| L1 | 0.008 | 0.016 | 0.20 | 0.40 | |
| θ | 0° | 8° | 0° | 8° | |

■ Soldering Footprint



Unit: $\frac{\text{inch}}{\text{mm}}$



1N4148WSQ

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