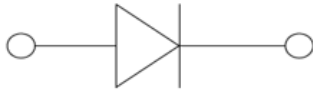


High Speed Switching Diode



SOD123

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_{RRM} 100V
- I_{FAV} 250mA
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- Extreme fast switches

Mechanical Data

- **Case:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** T5

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

| PARAMETER | SYMBOL | UNIT | CONDITIONS | VALUE |
|--|------------|------------------|-------------------------------------|-------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | V | | 100 |
| Average Forward Current | I_{FAV} | mA | | 250 |
| Peak Forward Surge Current | I_{FSM} | A | Pulse width=1 us Pulse width=1 s | 2 0.5 |
| Power Dissipation | P_{tot} | mW | | 500 |
| Thermal Resistance Junction to Ambient | R_{thJA} | K/W | | 315 |
| Junction Temperature | T_j | $^\circ\text{C}$ | | -55 to +150 |
| Storage Temperature Range | T_{stg} | $^\circ\text{C}$ | | -55 to +150 |



1N4448WQ

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | CONDITIONS | MIN | MAX |
|-----------------------|-----------------|------|---|-----|-----|
| Forward Voltage | V _F | V | I _F =100mA | | 1.0 |
| Reverse Current | I _R | nA | V _R =20V | | 25 |
| | | | V _R =75V | | 200 |
| Breakdown Voltage | V _R | V | I _R =100μA | 100 | |
| Junction Capacitance | C _j | pF | V _R =V _F =0V, f=1MHz | | 4 |
| Reverse Recovery Time | t _{rr} | ns | I _F =I _R =10mA, I _{rr} =0.1I _R , R _L =100Ω | | 4 |

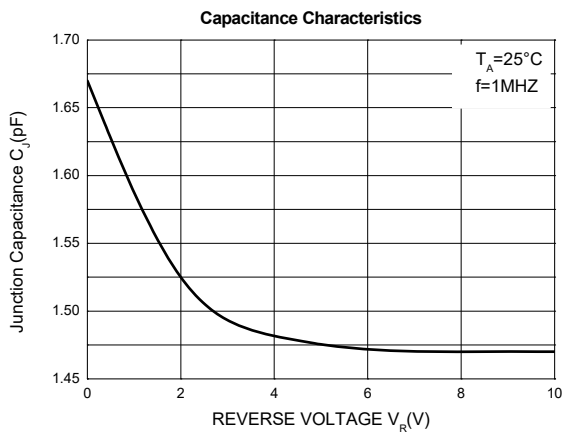
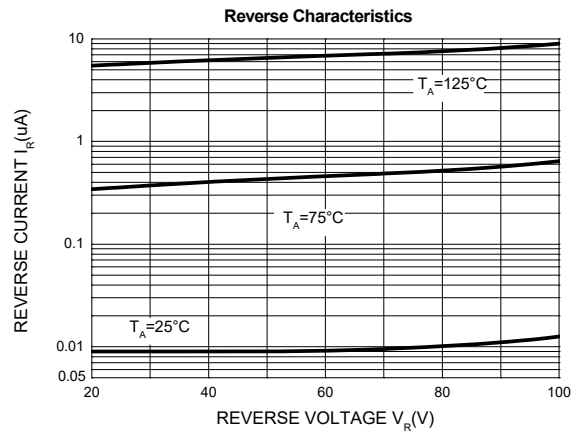
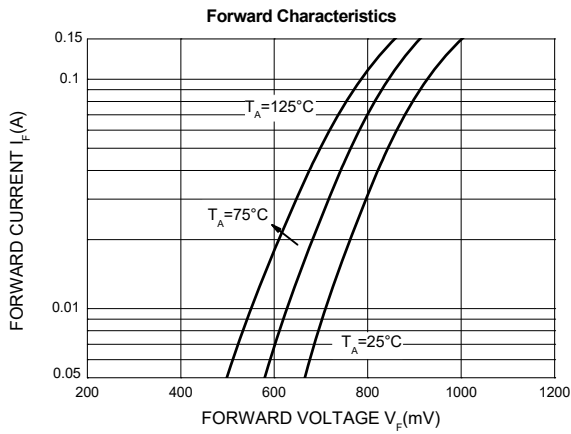
■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| 1N4448WQ | F2 | Approximate 0.010 | 3000 | 30000 | 120000 | 7" reel |



1N4448WQ

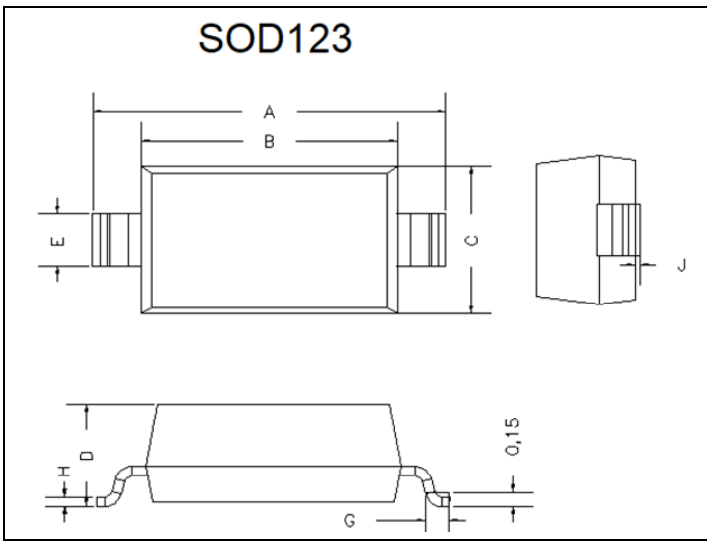
■ Characteristics (Typical)





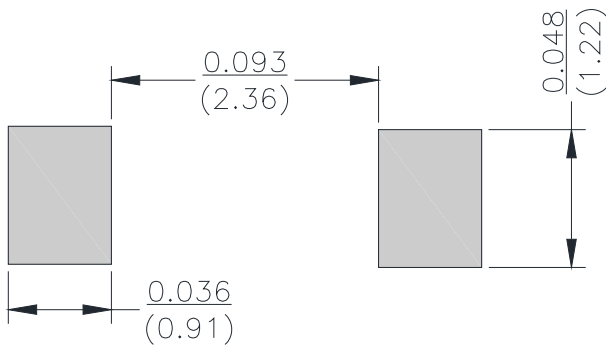
1N4448WQ

■ Outline Dimensions



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.140 | 0.152 | 3.55 | 3.85 | |
| B | 0.100 | 0.112 | 2.55 | 2.85 | |
| C | 0.055 | 0.071 | 1.40 | 1.80 | |
| D | - | 0.053 | - | 1.35 | |
| E | 0.012 | 0.031 | 0.30 | 0.78 | |
| G | 0.006 | - | 0.15 | - | |
| H | - | 0.010 | - | 0.25 | |
| J | - | 0.006 | - | 0.15 | |

■ Soldering Footprint



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



1N4448WQ

Disclaimer

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