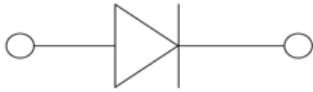


Small Singal Schottky Rectifier



SOD123

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_R 20V/30V/40V
- I_{FAV} 1A
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- Use as rectifiers in low-voltage,high-frequency inverters

Mechanical Data

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

| | Marking |
|---------|---------|
| B5817WQ | SJ |
| B5818WQ | SK |
| B5819WQ | SL |

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | CONDITIONS | VALUE | |
|--|------------|------|------------------|-------------|----|
| Reverse Voltage | V_R | V | | B5817WQ | 20 |
| | | | | B5818WQ | 30 |
| | | | | B5819WQ | 40 |
| Average Forward Current | I_{FAV} | A | | 1 | |
| Peak Forward Surge Current | I_{FSM} | A | 8.3ms, half sine | 10 | |
| Power Dissipation | P_{tot} | mW | | 450 | |
| Thermal Resistance Junction to Ambient | R_{thJA} | °C/W | | 222 | |
| Junction Temperature | T_j | °C | | -55 to +125 | |
| Storage Temperature Range | T_{stg} | °C | | -55 to +150 | |



B5817WQ THRU B5819WQ

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

| PARAMETER | SYMBOL | UNIT | CONDITIONS | PART | MIN | MAX |
|---------------------------|--------------------|------|----------------------------|---------|-----|-------|
| Reverse Breakdown Voltage | V _{(BR)R} | V | I _R =1mA | B5817WQ | 20 | - |
| | | | | B5818WQ | 30 | - |
| | | | | B5819WQ | 40 | - |
| Forward Voltage | V _F | V | I _F =1A | B5817WQ | | 0.45 |
| | | | | B5818WQ | | 0.55 |
| | | | | B5819WQ | | 0.60 |
| | | | I _F =3A | B5817WQ | | 0.75 |
| | | | | B5818WQ | | 0.875 |
| | | | | B5819WQ | | 0.90 |
| Reverse Leakage Current | I _R | uA | V _R =20V | B5817WQ | | 200 |
| | | | V _R =30V | B5818WQ | | 40 |
| | | | V _R =40V | B5819WQ | | 40 |
| Junction Capacitance | C _j | pF | V _R =4V, f=1MHz | | | 120 |

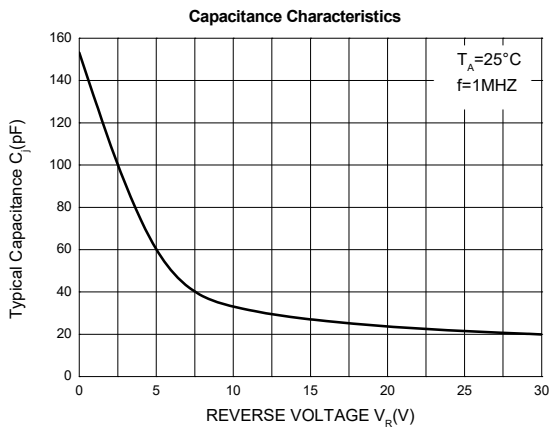
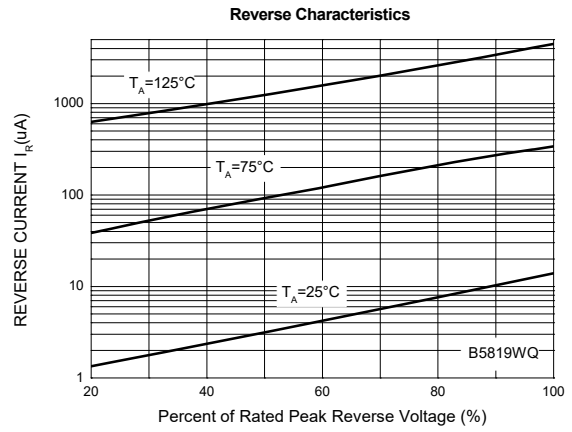
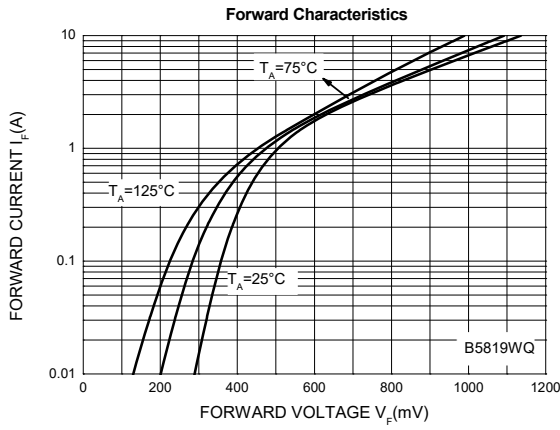
■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|-------------------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| B5817WQ THRU B5819WQ | F2 | Approximate 0.010 | 3000 | 30000 | 120000 | 7" reel |



B5817WQ THRU B5819WQ

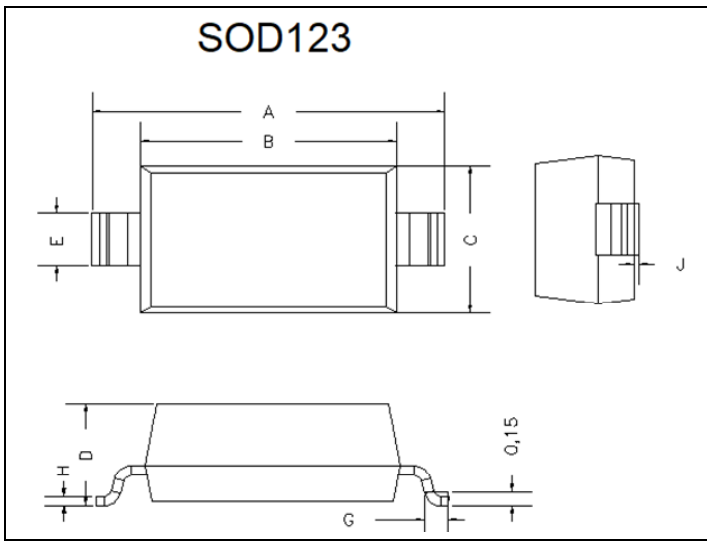
■ Characteristics(Typical)





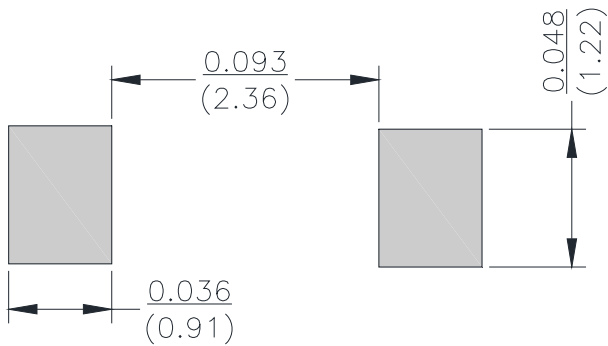
B5817WQ THRU B5819WQ

■ 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: $\frac{\text{inch}}{\text{mm}}$



B5817WQ THRU B5819WQ

Disclaimer

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