



Axial lead diode

Schottky barrier rectifiers diodes

SB 320...SB 3100

Forward Current: 3 A

Reverse Voltage: 20 to 100 V

Features

- Max. solder temperature: 260 °C
- Plastic material has UL classification 94V-0

Mechanical Data

- Plastic case DO-201
- Weight approx.: 1 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 1700 pieces per ammo

1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case

2) $I_F = 3 \text{ A}$, $T_J = 25 \text{ °C}$

3) $T_A = 25 \text{ °C}$

| Type | Repetitive peak reverse voltage V_{RRM} V | Surge peak reverse voltage V_{RSM} V | Max. reverse recovery time $I_F = -A$ $I_R = -A$ $I_{RR} = -A$ t_{rr} ns | Max. forward voltage $V_F^{2)}$ |
|---------|---|--|---|------------------------------------|
| SB 320 | 20 | 20 | - | 0,50 |
| SB 330 | 30 | 30 | - | 0,50 |
| SB 340 | 40 | 40 | - | 0,50 |
| SB 350 | 50 | 50 | - | 0,70 |
| SB 360 | 60 | 60 | - | 0,70 |
| SB 390 | 90 | 90 | - | 0,79 |
| SB 3100 | 100 | 100 | - | 0,79 |

Absolute Maximum Ratings $T_A = 25 \text{ °C}$, unless otherwise specified

| Symbol | Conditions | Values | Units |
|-----------|--|------------|------------------|
| I_{FAV} | Max. averaged fwd. current, R-load, $T_A = 50 \text{ °C}^1)$ | 3 | A |
| I_{FRM} | Repetitive peak forward current $f > 15 \text{ Hz}^1)$ | 15 | A |
| I_{FSM} | Peak forward surge current 50 Hz half sinus-wave $^3)$ | 100 | A |
| i^2t | Rating for fusing, $t < 10 \text{ ms}^3)$ | 50 | A ² s |
| R_{thA} | Max. thermal resistance junction to ambient $^1)$ | 25 | K/W |
| R_{thL} | Max. thermal resistance junction to terminals $^4)$ | 8 | K/W |
| T_J | Operating junction temperature | -50...+150 | °C |
| T_s | Storage temperature | -50...+175 | °C |

Characteristics $T_A = 25 \text{ °C}$, unless otherwise specified

| Symbol | Conditions | Values | Units |
|-----------|---|-----------------|-------|
| I_R | Maximum leakage current, $T_J = 25 \text{ °C}$; $V_R = V_{RRM}$ | SB320-60 <0,50 | mA |
| | $T_J = \text{°C}$; $V_R = V_{RRM}$ | SB390-1100 <0,6 | mA |
| C_J | Typical junction capacitance (at MHz and applied reverse voltage of V) | - | pF |
| Q_{rr} | Reverse recovery charge ($U_R = V$; $I_F = A$; $dI_F/dt = A/ms$) | - | μC |
| E_{RSM} | Non repetitive peak reverse avalanche energy ($I_R = mA$; $T_J = \text{°C}$; inductive load switched off) | - | mJ |



