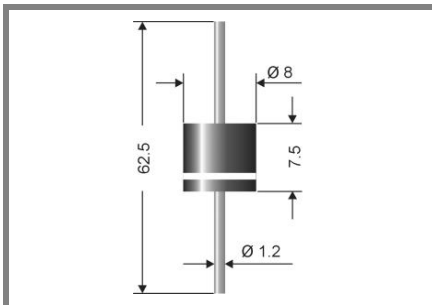


SBH 1520 ... SBH 1545



Axial lead diode

| Type | Repetitive peak reverse voltage | Surge peak reverse voltage | Max. reverse recovery time | Max. forward voltage |
|----------|---------------------------------|----------------------------|--|----------------------|
| | V_{RRM} V | V_{RSM} V | $I_F = - A$ $I_R = - A$ $I_{RR} = - A$ t_{rr} ns | $V_F^{(2)}$ |
| SBH 1520 | 20 | 20 | - | 0,48 |
| SBH 1530 | 30 | 30 | - | 0,48 |
| SBH 1540 | 40 | 40 | - | 0,48 |
| SBH 1545 | 45 | 45 | - | 0,48 |

High temperature schottky barrier diodes

SBH 1520 ... SBH 1545

Forward Current: 15 A

Reverse Voltage: 20 to 45 V

Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0
- Electrostatic discharge immunity test IEC 1000-4-2 (C=150 pF, R=150 Ohm):voltage class 20 kV

Mechanical Data

- Plastic case: 8 x 7,5 [mm]
- Weight approx.: 1,5 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 500 pieces per ammo or 1000 pieces per reel

- 1) Valid, if leads are kept at T_A at a distance of 10 mm from case
- 2) $V_F < 0,48V @ I_F = 5 A$ and $V_F < 0,56 V @ I_F = 15 A (T_A = 25 ^\circ C)$
- 3) $T_A = 25 ^\circ C$
- 4) Thermal resistance from junction to lead/terminal at a distance 0 mm from case
- 5) Max. junction temperature $T_j \leq 200 ^\circ C$ in reverse mode $V_R \leq 50\% V_{RRM}$ and in bypass mode / DC forward mode

| Absolute Maximum Ratings | | $T_A = 25 ^\circ C$, unless otherwise specified | |
|--------------------------|---|--|------------------|
| Symbol | Conditions | Values | Units |
| I_{FAV} | Max. averaged fwd. current, R-load, $T_A = 50 ^\circ C$ ¹⁾ | 15 | A |
| I_{FRM} | Repetitive peak forward current $f > 15 Hz$ ¹⁾ | 60 | A |
| I_{FSM} | Peak forward surge current 50 Hz half sinus-wave ³⁾ | 350 | A |
| i^2t | Rating for fusing, $t < 10 ms$ ³⁾ | 612 | A ² s |
| R_{thA} | Max. thermal resistance junction to ambient ¹⁾ | | K/W |
| R_{thL} | Max. thermal resistance junction to terminals ⁴⁾ | 3 | K/W |
| T_j | Operating junction temperature | - 50 ... + 185 ($T_j \leq 200 ^\circ C$ in reverse mode $V_R \leq 50\% V_{RRM}$ ⁵⁾) | °C |
| T_s | Storage temperature | - 50 ... + 200 | °C |

| Characteristics | | $T_A = 25 ^\circ C$, unless otherwise specified | |
|-----------------|---|--|---------|
| Symbol | Conditions | Values | Units |
| I_R | Maximum leakage current, $T_j = 25 ^\circ C$; $V_R = V_{RRM}$ | <50 | μA |
| | $T_j = 100 ^\circ C$; $V_R = V_{RRM}$ | <5 | 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 ($I_R = mA$; $T_j = ^\circ C$; inductive load switched off) | - | mJ |

