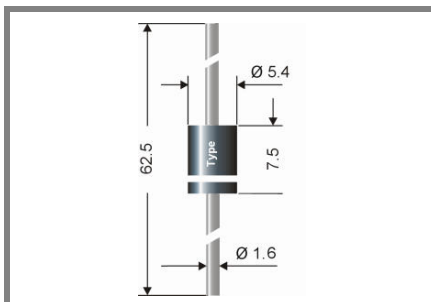


SBH 1220TL ... SBH 1245TL



Axial lead diode

| 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 $V_F^{(2)}$ |
|------------|---|--|---|-------------------------------------|
| SBH 1220TL | 20 | 20 | - | 0,51 |
| SBH 1230TL | 30 | 30 | - | 0,51 |
| SBH 1240TL | 40 | 40 | - | 0,51 |
| SBH 1245TL | 45 | 45 | - | 0,51 |

High temperature Schottky barrier diodes

SBH 1220TL ... SBH 1245TL

Forward Current: 12 A

Reverse Voltage: 20 to 45 V

Preliminary Data

Features

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

Mechanical Data

- Plastic case: 5,4 x 7,5 [mm]
- Weight approx.: 1,6 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 1250 pieces per ammo or per reel

- 1) Valid, if leads are kept at ambient temperature at a distance 0mm from case
- 2) $I_F = 5 A$, $V_F < 600 mV$ @ $I_F = 12 A$, $T_J = 25 ^\circ C$
- 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 $V_R = 80\% V_{RRM}$ 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, $T_A = 75 ^\circ C$ ¹⁾ | 12 | A |
| I_{FRM} | Repetitive peak forward current $f > 15 Hz$ ¹⁾ | 55 | A |
| I_{FSM} | Peak forward surge current 50 Hz half sinus-wave ³⁾ | 300 | A |
| i^2t | Rating for fusing, $t < 10 ms$ ³⁾ | 450 | A ² s |
| R_{thA} | Max. thermal resistance junction to ambient ¹⁾ | | K/W |
| R_{thL} | Max. thermal resistance junction to terminals ⁴⁾ | 2 | K/W |
| T_j | Operating junction temperature | - 50 ... + 200 | °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 |
| | $T_j = 100 ^\circ C$; $V_R = V_{RRM}$ | <2,5 | 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 |

