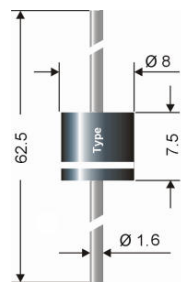


SBH 1520TL...SBH 1560TL



Axial lead diode

High temperature schottky barrier diodes

SBH 1520TL...SBH 1560TL

Forward Current: 15 A

Reverse Voltage: 20 to 60 V

Preliminary Data

Features

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

Mechanical Data

- Plastic case: 8 x 7,5 [mm]
- Weight approx.: 2,0 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 0 mm from case

2) $I_F = 5 \text{ A}$, $V_F < 0,56 \text{ V}$ @ $I_F = 15 \text{ A}$ (SBH1520TL...45TL), $T_A = 25 \text{ °C}$

3) $T_A = 25 \text{ °C}$

4) Thermal resistance from junction to lead/terminal at a distance 0 mm from case

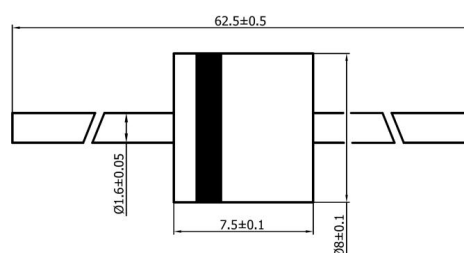
5) Max. junction temperature $T_j \leq 200 \text{ °C}$ in reverse mode $V_R \leq 50\% V_{RRM}$ and in bypass mode / DC forward mode

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 1520TL	20	20	-	0,48
SBH 1530TL	30	30	-	0,48
SBH 1540TL	40	40	-	0,48
SBH 1545TL	45	45	-	0,48
SBH 1550TL	50	50	-	0,6
SBH 1560TL	60	60	-	0,6

Absolute Maximum Ratings		$T_A = 25 \text{ °C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 75 \text{ °C}^{1)}$	15	A
I_{FRM}	Repetitive peak forward current $f > 15 \text{ Hz}^{1)}$	60	A
I_{FSM}	Peak forward surge current 50 Hz half sinus-wave $^{3)}$	380	A
i^2t	Rating for fusing, $t < 10 \text{ ms}^{3)}$	720	A ² s
R_{thA}	Max. thermal resistance junction to ambient $^{1)}$		K/W
R_{thL}	Max. thermal resistance junction to terminals $^{4)}$	1,8	K/W
T_j	Operating junction temperature	- 50 ... + 185 ($T_j \leq 200 \text{ °C}$ in reverse mode $V_R \leq 50\% V_{RRM}^{5)}$)	°C
T_s	Storage temperature	- 50 ... + 200	°C

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

Dimensions in mm



case: 8 x 7,5 [mm]

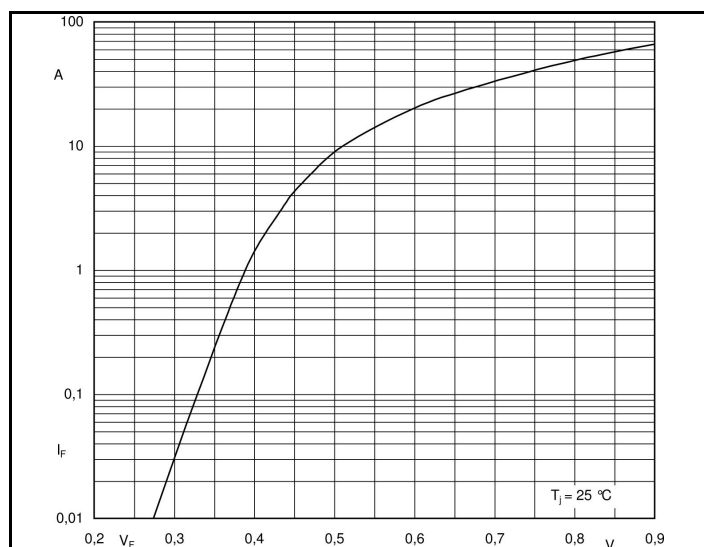


Fig. 1, Forward characteristics (typical values)

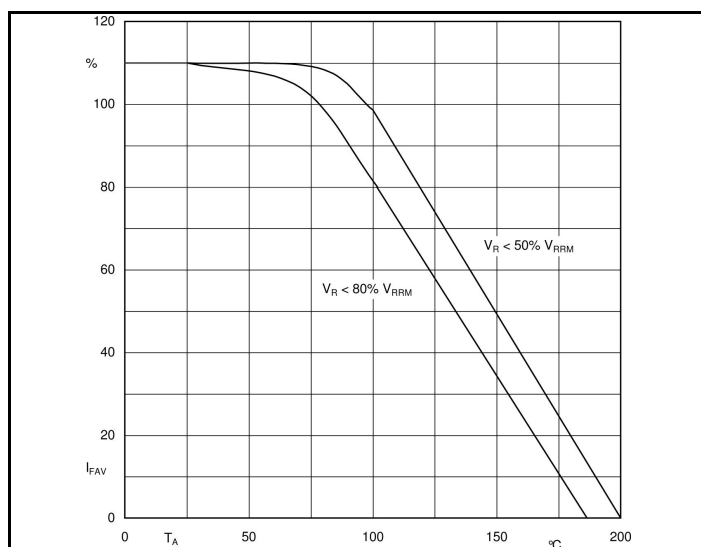


Fig. 2, Rated forward current vs. temp. of the terminals ¹⁾

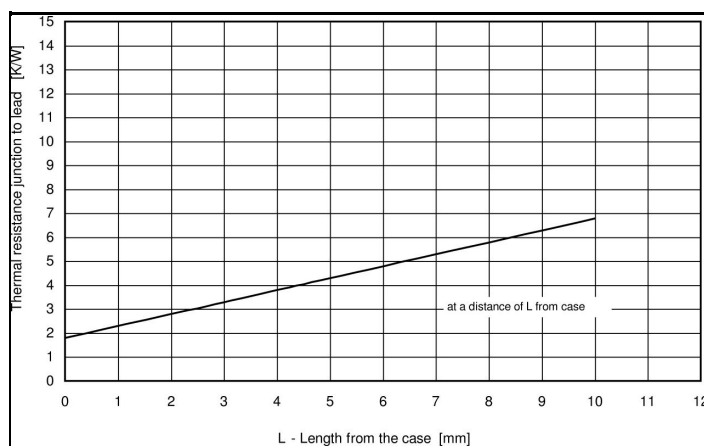


Fig. 3, Thermal resistance versus distance from case