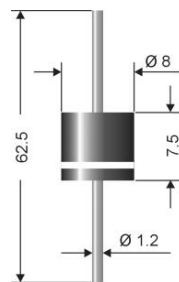


SBH 1520 ... SBH 1545



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

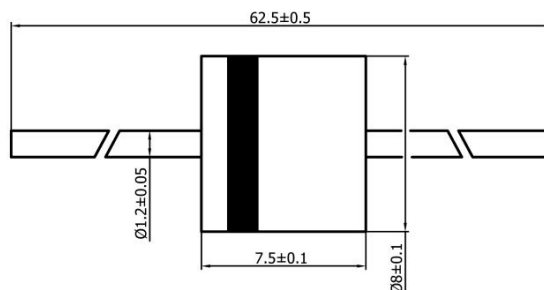
- Plastic case: 8 x 7,5 [mm]
- Weight approx.: 1,5 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 500 pieces per ammo or 1000 pieces per reel

- 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⁾)	$^\circ C$
T_s	Storage temperature	- 50 ... + 200	$^\circ C$

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

Dimensions in mm



case: 8 x 7,5 [mm]

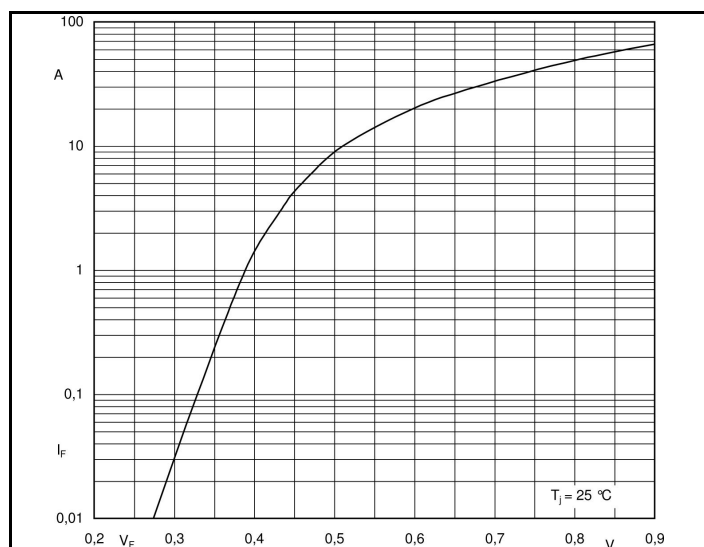


Fig. 1, Forward characteristics (typical values)

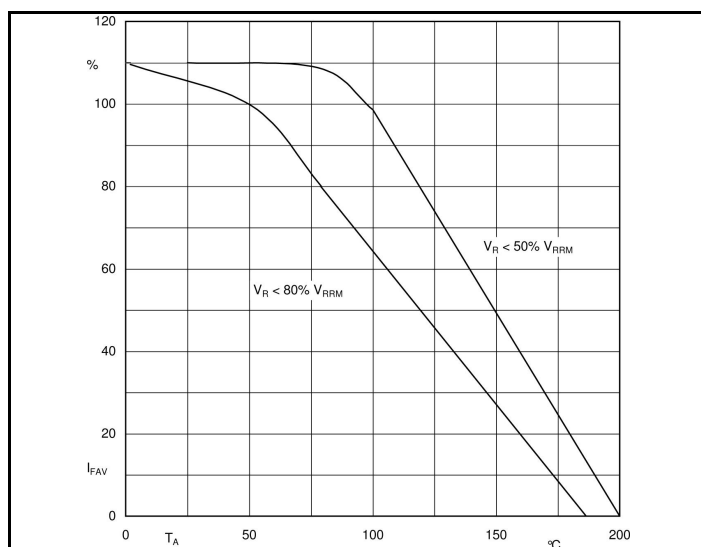


Fig. 2, Rated forward current vs. temp. of the terminals ¹⁾

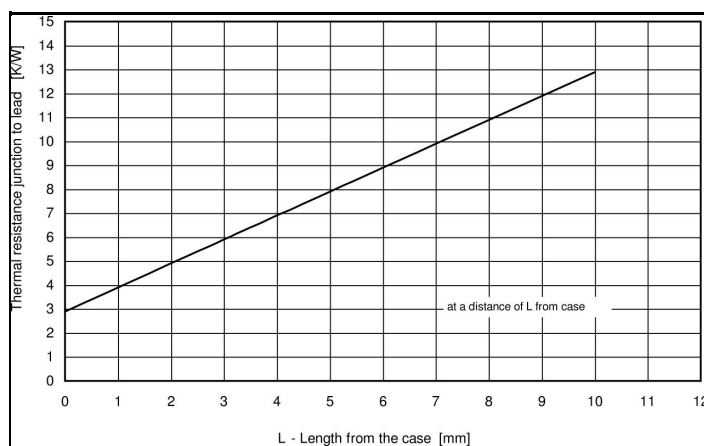


Fig. 3, Thermal resistance versus distance from case