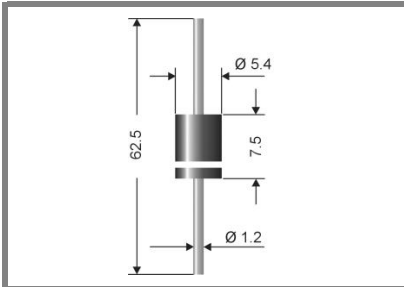


SBH 1520S ... SBH 1540S



Axial lead diode

High temperature schottky barrier diodes

SBH 1520S ... SBH 1540S

Forward Current: 15 A

Reverse Voltage: 20 to 40 V

Features

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

Mechanical Data

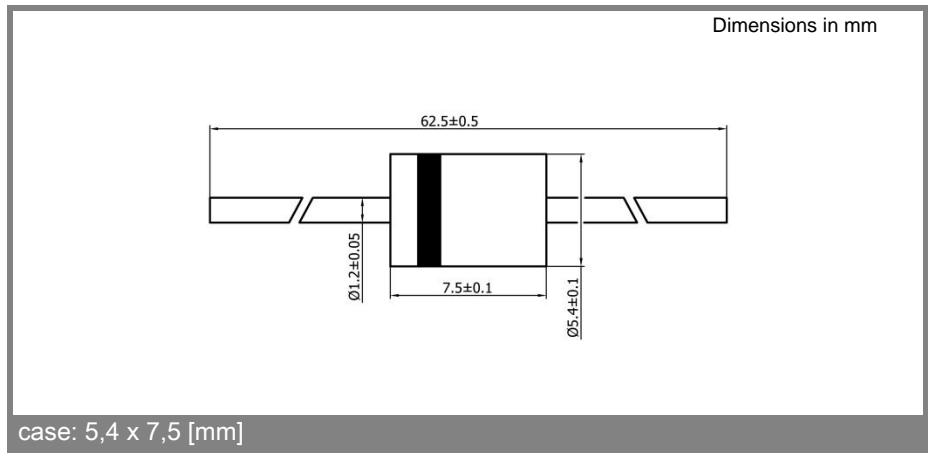
- Plastic case: 5,4 x 7,5 [mm]
- Weight approx.: 1,4 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 1250 pieces per ammo

- 1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case
- 2) $I_F = 5 \text{ A}$, $T_J = 25 \text{ °C}$
- 3) $T_A = 25 \text{ °C}$
- 4) Max. junction temperature $T_J \leq 200 \text{ °C}$ (reverse mode $V_R \leq 50\% V_{RRM}$ and in bypass 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 1520S	20	20	-	0,48
SBH 1530S	30	30	-	0,48
SBH 1540S	40	40	-	0,48

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 $^{3)}$	300	A
i^2t	Rating for fusing, $t < 10 \text{ ms}^{3)}$	450	A ² s
R_{thA}	Max. thermal resistance junction to ambient $^{1)}$	14	K/W
R_{thT}	Max. thermal resistance junction to terminals $^{1)}$	-	K/W
T_j	Operating junction temperature	- 50 ... + 175 ($T_j \leq 200 \text{ °C}^{4)}$	°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, $T_j = 25 \text{ °C}$; $V_R = V_{RRM}$	<150	µA
	$T_j = 100 \text{ °C}$; $V_R = V_{RRM}$	<4	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



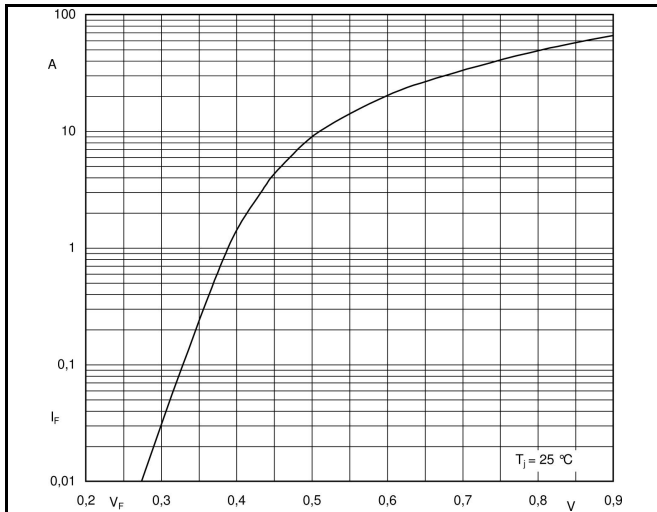


Fig. 1, Forward characteristics (typical values)

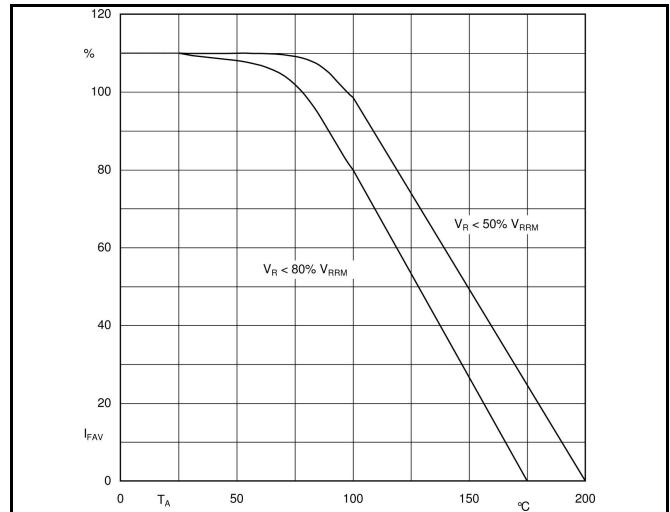


Fig. 2, Rated forward current vs. temp. of the terminals