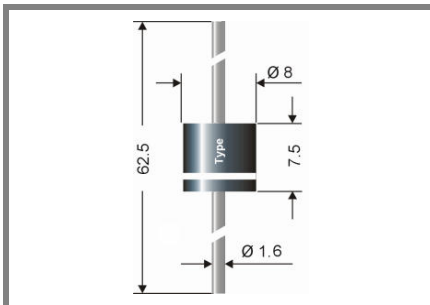


SBH 1520TL...SBH 1560TL



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 ($I_R = \text{mA}$; $T_j = \text{°C}$; inductive load switched off)	-	mJ

