



Axial lead diode

Schottky barrier rectifiers diodes

SB 120...SB 1100

Forward Current: 1 A

Reverse Voltage: 20 to 100 V

Features

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

Mechanical Data

- Plastic case DO-15 / DO-204AC
- Weight approx.: 0,4 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 4000 pieces per ammo

1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case

2) $I_F = 1 \text{ A}$, $T_J = 25 \text{ °C}$

3) $T_A = 25 \text{ °C}$

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 $V_F^{2)}$
SB 120	20	20	-	0,50
SB 130	30	30	-	0,50
SB 140	40	40	-	0,50
SB 150	50	50	-	0,70
SB 160	60	60	-	0,70
SB 190	90	90	-	0,79
SB 1100	100	100	-	0,79

Absolute Maximum Ratings

$T_A = 25 \text{ °C}$, unless otherwise specified

Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 50 \text{ °C}$ ¹⁾	1	A
I_{FRM}	Repetitive peak forward current $f > 15 \text{ Hz}$ ¹⁾	10	A
I_{FSM}	Peak forward surge current 50 Hz half sinus-wave ³⁾	40	A
i^2t	Rating for fusing, $t < 10 \text{ ms}$ ³⁾	8	A ² s
R_{thA}	Max. thermal resistance junction to ambient ¹⁾	45	K/W
R_{thT}	Max. thermal resistance junction to terminals ¹⁾	15	K/W
T_J	Operating junction temperature	-50...+150	°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, $T_J = 25 \text{ °C}$; $V_R = V_{RRM}$	<0,5	mA
	$T_J = 100 \text{ °C}$; $V_R = V_{RRM}$	<5,0	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



