



Surface mount diode

Ultrafast silicon rectifier diodes

BAV 100...BAV 103

Forward Current: 0,2 A

Reverse Voltage: 50 to 300 V

Features

- Max. solder temperature: 260 °C
- Plastic material has UL classification 94V-0
- One green ring denotes " cathode " and " ultrafast switching device "
- The type numbers are noted only on the label on the reel

Mechanical Data

- Plastic case MiniMelf / DO-213AA / SOD-80
- Weight approx.: 0,04 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 10000, 2500 pieces per reel

- 1) Max. temperature of the terminals $T_T = 50$ °C
- 2) $I_F = 0,2$ A, $T_J = 25$ °C
- 3) $T_A = 25$ °C
- 4) Mounted on P.C. board with 25 mm² copper pads at each terminal
- 5) Max. power dissipation, $T_T = 50$ °C, $P_{tot} = 500$ mW

Type	Polarity color band	Repetitive peak reverse voltage V_{RRM} V	Surge peak reverse voltage V_{RSM} V	Maximum forward voltage $T_J = 25$ °C $I_F = 0,2$ A $V_F^{(2)}$ V	Maximum reverse recovery time $I_F = 0,5$ A $I_R = 1$ A $I_{RR} = 0,25$ A t_{rr} ns
BAV 100	gray	50	50	1,25	50
BAV 101	red	100	100	1,25	50
BAV 102	orange	200	200	1,25	50
BAV 103	brown	300	300	1,25	50

Absolute Maximum Ratings		$T_C = 25$ °C, unless otherwise specified	
Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_T = 50$ °C ¹⁾	0,2	A
I_{FRM}	Repetitive peak forward current $f > \text{Hz}$	-	A
I_{FSM}	Peak fwd. surge current 50 Hz half sinus-wave ³⁾	0,5	A
I^2t	Rating for fusing, $t < \text{ms}$ ³⁾		A ² s
R_{thA}	Max. thermal resistance junction to ambient ⁴⁾	150	K/W
R_{thT}	Max. thermal resistance junction to terminals	70	K/W
T_J	Operating junction temperature	-50...+175	°C
T_s	Storage temperature	-50...+175	°C

Characteristics		$T_C = 25$ °C, unless otherwise specified	
Symbol	Conditions	Values	Units
I_R	Maximum leakage current, $T_J = 25$ °C; $V_R = V_{RRM}$	<5	µA
	$T_J = 125$ °C; $V_R = V_{RRM}$	<50	µA
C_J	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
Q_{rr}	Reverse recovery charge ($U_R = V$; $I_F = A$; $dI_F/dt = A/\text{ms}$)	-	µC
E_{RSM}	Non repetitive peak reverse avalanche energy ($I_R = \text{mA}$; $T_J = \text{°C}$; inductive load switched off)	-	mJ



