

# BAV100 ~ BAV103

## FEATURES :

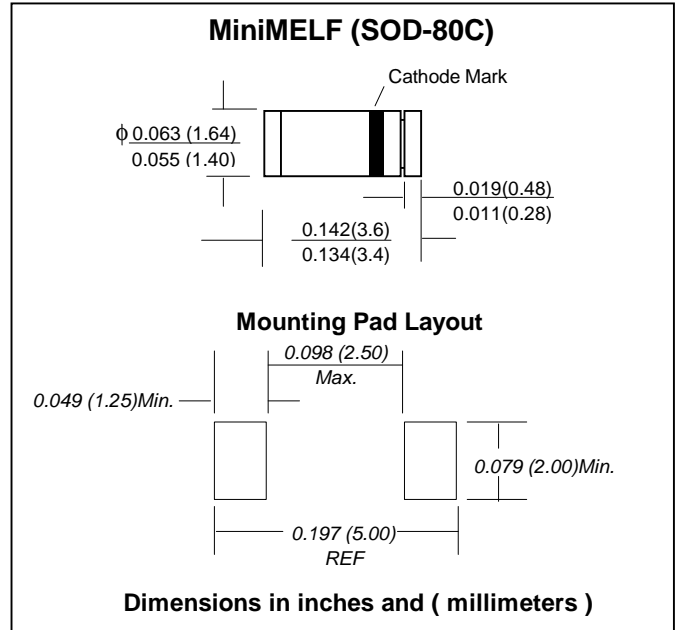
- Switching speed: max. 50 ns
- General application
- Continuous reverse voltage:  
max. 50 V, 100 V, 150 V and 200 V respectively
- Repetitive peak reverse voltage:  
max. 60 V, 120 V, 200 V and 250 V respectively
- Repetitive peak forward current: max. 625 mA.
- Pb / RoHS Free

## MECHANICAL DATA :

**Case:** MiniMELF Glass Case (SOD-80)

**Weight:** approx. 0.05g

## HIGH SPEED SWITCHING DIODES



## Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

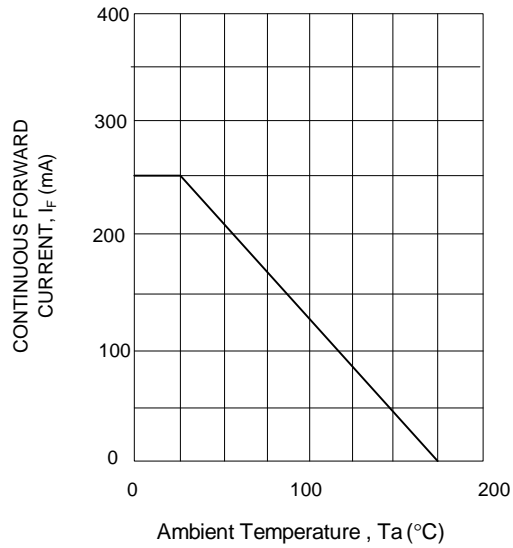
Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	BAV100	60
		BAV101	120
		BAV102	200
		BAV103	250
Maximum Continuous Reverse Voltage	$V_R$	BAV100	50
		BAV101	100
		BAV102	150
		BAV103	200
Maximum Repetitive Peak Forward Current	$I_{FRM}$	625	mA
Maximum Continuous Forward Current	$I_F$	250	mA
Maximum Surge Forward Current	$I_{FSM}$	at $t = 100\mu s$ , $T_j = 25^\circ C$	3.0
		at $t = 1s$ , $T_j = 25^\circ C$	1.0
Maximum Power Dissipation	$P_D$	400	mW
Maximum Junction Temperature	$T_J$	175	$^\circ C$
Storage Temperature Range	$T_S$	-65 to + 175	$^\circ C$

## Electrical Characteristics ( $T_J = 25^\circ C$ unless otherwise noted)

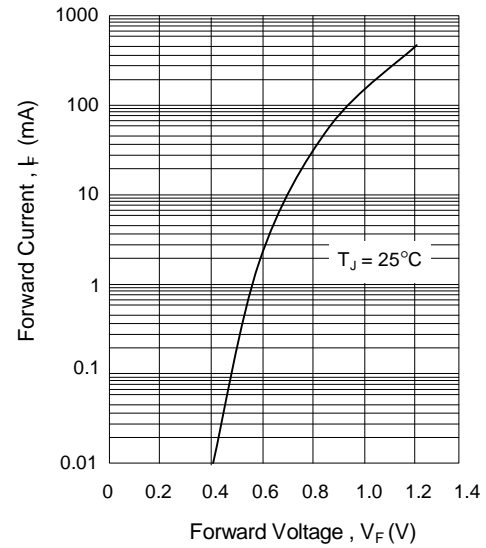
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	$I_R$	$V_R = 50 V$	-	-	100	nA
		$V_R = 100 V$	-	-	100	
		$V_R = 150 V$	-	-	100	
		$V_R = 200 V$	-	-	100	
Forward Voltage	$V_F$	$I_F = 100 mA$ $I_F = 200 mA$	-	-	1.0 1.25	V
Diode Capacitance	Cd	$f = 1MHz$ ; $V_R = 0$	-	-	5.0	pF
Reverse Recovery Time	$T_{rr}$	$I_F = 30 mA$ to $I_R = 30mA$ $R_L = 100 \Omega$ ; measured at $I_R = 3mA$	-	-	50	ns

## RATING AND CHARACTERISTIC CURVES ( BAV100 ~ BAV103 )

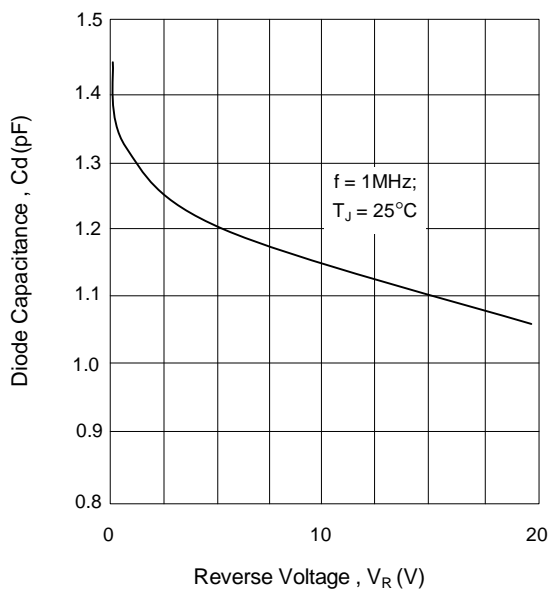
**FIG. 1 MAXIMUM FORWARD CURRENT VERSUS AMBIENT TEMPERATURE**



**FIG. 2 TYPICAL FORWARD VOLTAGE**



**FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE**



**FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE**

