

# BAV105

## FEATURES :

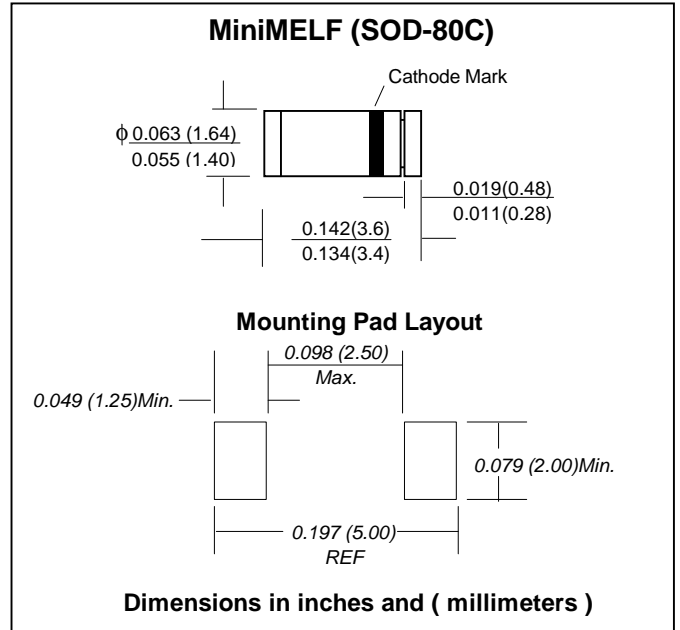
- High switching speed: max. 6 ns
- General application
- Continuous reverse voltage: max. 60 V
- Repetitive peak reverse voltage: max. 60 V
- Repetitive peak forward current: max. 600 mA.
- Pb / RoHS Free

## MECHANICAL DATA :

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

**Weight:** approx. 0.05g

## HIGH SPEED SWITCHING DIODE



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

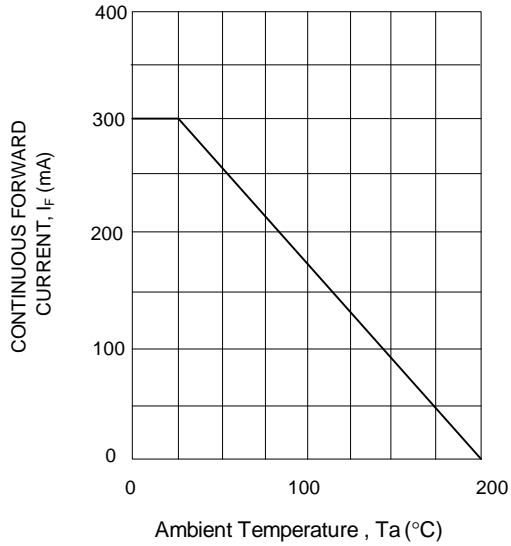
Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RM}$	60	V
Maximum Continuous Reverse Voltage	$V_R$	60	V
Maximum Continuous Forward Current	$I_F$	300	mA
Maximum Repetitive Peak Forward Current	$I_{FRM}$	600	mA
Maximum Surge Forward Current at $t < 1s$ , $T_j = 25^\circ C$	$I_{FSM}$	0.5	A
Maximum Power Dissipation	$P_D$	500	mW
Maximum Junction Temperature	$T_J$	200	$^\circ C$
Storage Temperature Range	$T_S$	-65 to + 200	$^\circ C$

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

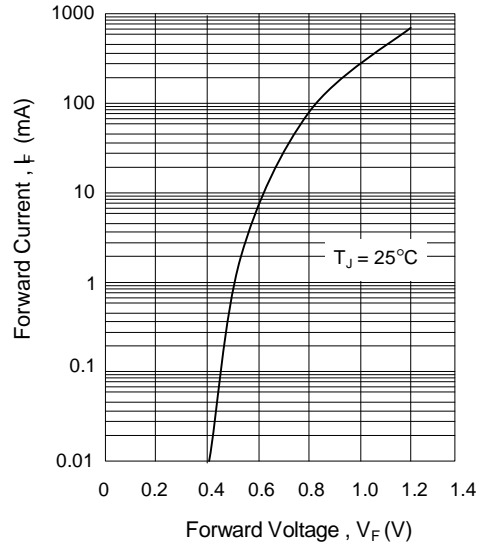
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	$I_R$	$V_R = 60 V$	-	-	100	nA
		$V_R = 60 V$ , $T_j = 150^\circ C$	-	-	100	$\mu A$
Forward Voltage	$V_F$	$I_F = 100 mA$	-	-	0.75	V
		$I_F = 200 mA$	-	-	1.00	
		$I_F = 500 mA$	-	-	1.25	
Diode Capacitance	$C_d$	$f = 1MHz$ ; $V_R = 0$	-	-	2.5	pF
Reverse Recovery Time	$T_{rr}$	$I_F = 400 mA$ to $I_R = 400mA$ $R_L = 100\Omega$ ; measured at $I_R = 40 mA$	-	-	6.0	ns

### RATING AND CHARACTERISTIC CURVES ( BAV105 )

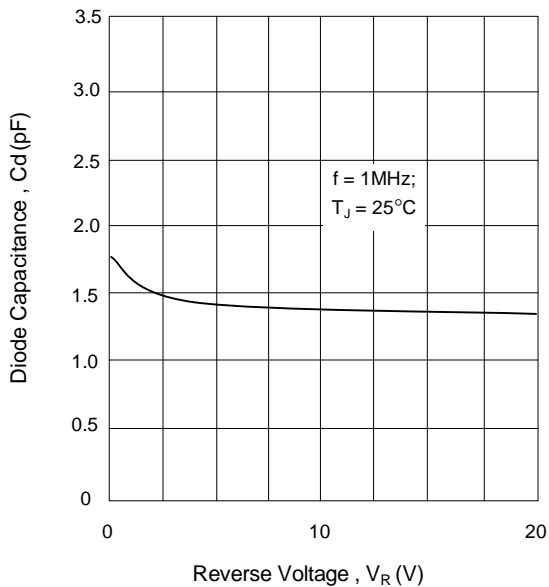
**FIG. 1 MAXIMUM FORWARD CURRENT VERSUS AMBIENT TEMPERATURE**



**FIG. 2 TYPICAL FORWARD VOLTAGE**



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



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

