

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

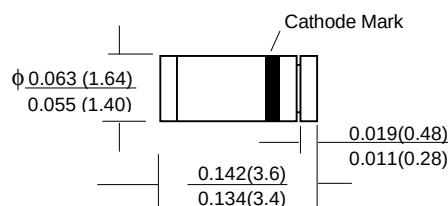
MECHANICAL DATA :

Case: MiniMELF Glass Case (SOD-80)

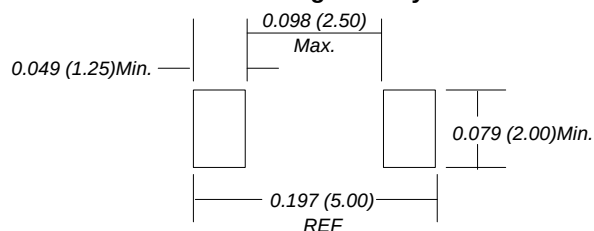
Weight: approx. 0.05g

HIGH SPEED SWITCHING DIODE

MiniMELF (SOD-80C)



Mounting Pad Layout



Dimensions in inches and (millimeters)

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	μA
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

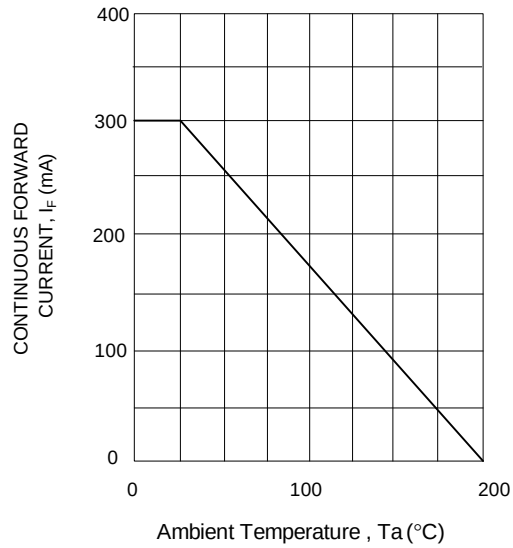


FIG. 2 TYPICAL FORWARD VOLTAGE

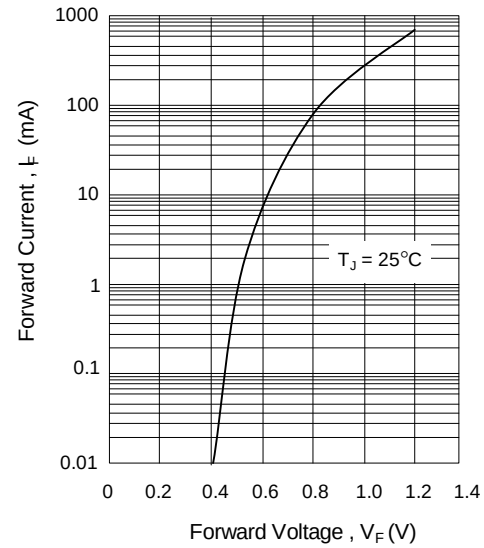


FIG. 3 TYPICAL DIODE CAPACITANCE AS
A FUNCTION OF REVERSE VOLTAGE

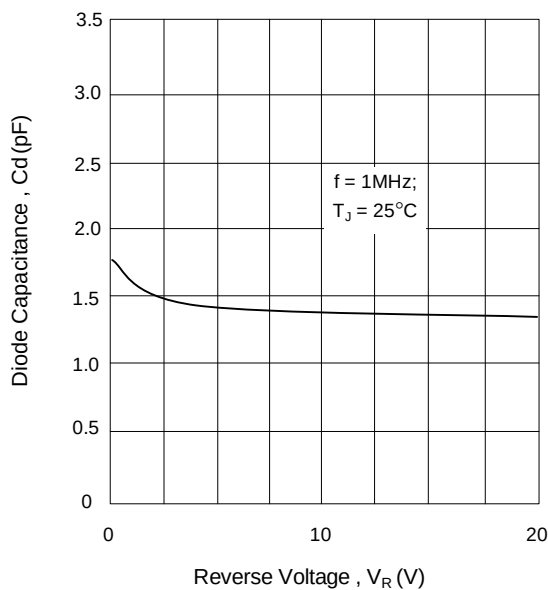


FIG. 4 TYPICAL REVERSE CURRENT
VERSUS JUNCTION TEMPERATURE

