

BAY80

SWITCHING DIODE

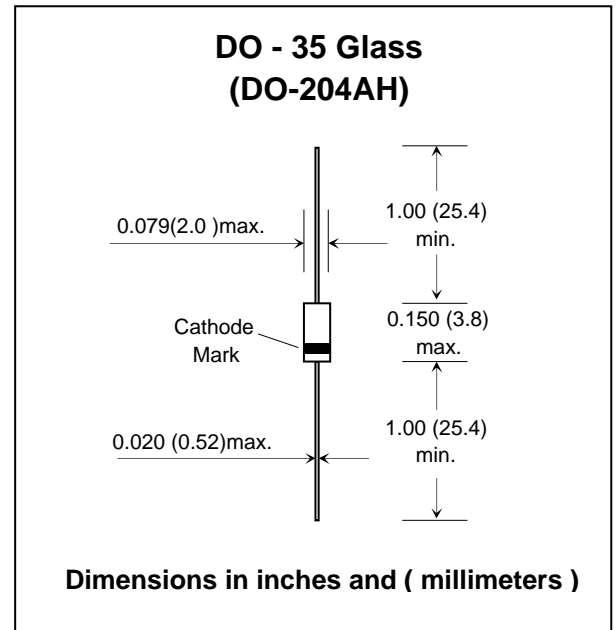
FEATURES :

- Switching speed: max. 50 ns
- General application
- Continuous reverse voltage: max. 120 V
- Repetitive peak reverse voltage: max. 150 V
- Repetitive peak forward current: max. 625 mA.
- Pb / RoHS Free

MECHANICAL DATA :

Case: DO-35 Glass Case

Weight: approx. 0.13g



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}	150	V
Maximum Continuous Reverse Voltage	V_{RM}	120	V
Maximum Continuous Forward Current	I_F	250	mA
Maximum Average Forward Current	$I_{F(AV)}$	200	mA
Maximum Repetitive Peak Forward Current	I_{FRM}	625	mA
Maximum Non-repetitive Peak Forward Current at $t = 1\text{ms}$, $T_j = 25\text{ }^\circ\text{C}$	I_{FSM}	1	A
Maximum Power Dissipation	P_D	400	mW
Maximum Junction Temperature	T_J	175	$^\circ\text{C}$
Storage Temperature Range	T_S	-65 to + 175	$^\circ\text{C}$

Electrical Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	I_R	$V_R = 120\text{ V}$	-	-	100	nA
		$V_R = 120\text{ V}$, $T_j = 150^\circ\text{C}$	-	-	100	μA
Forward Voltage	V_F	$I_F = 10\text{ mA}$	0.65	-	0.80	V
		$I_F = 50\text{ mA}$	0.73	-	0.92	
		$I_F = 100\text{ mA}$	0.78	-	1.00	
		$I_F = 150\text{ mA}$	-	-	1.07	
Diode Capacitance	Cd	$f = 1\text{MHz}$; $V_R = 0$	-	-	6	pF
Reverse Recovery Time	Trr	$I_F = 30\text{mA}$, $I_R = 30\text{mA}$ $I_{RR} = 3\text{mA}$, $R_L = 100\ \Omega$ measured at $I_R = 3\text{ mA}$	-	-	50	ns

RATING AND CHARACTERISTIC CURVES (BAY80)

FIG. 1 MAXIMUM PERMISSIBLE AVERAGE FORWARD CURRENT VERSUS AMBIENT TEMPERATURE.

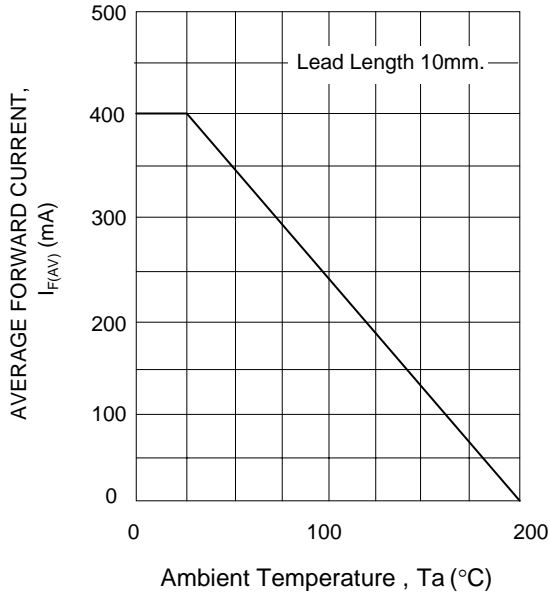


FIG. 2 TYPICAL FORWARD VOLTAGE

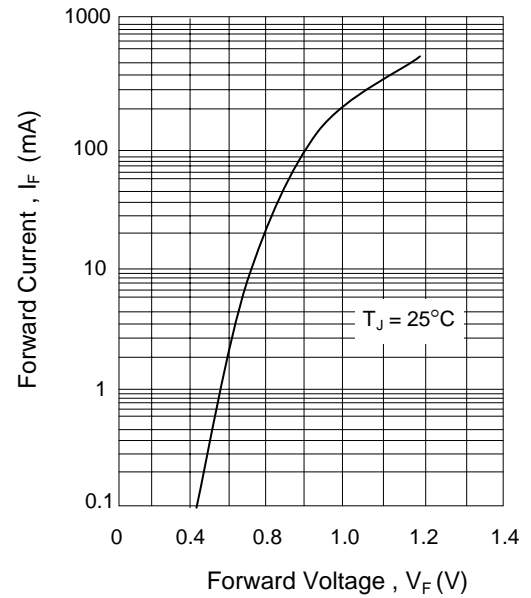


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

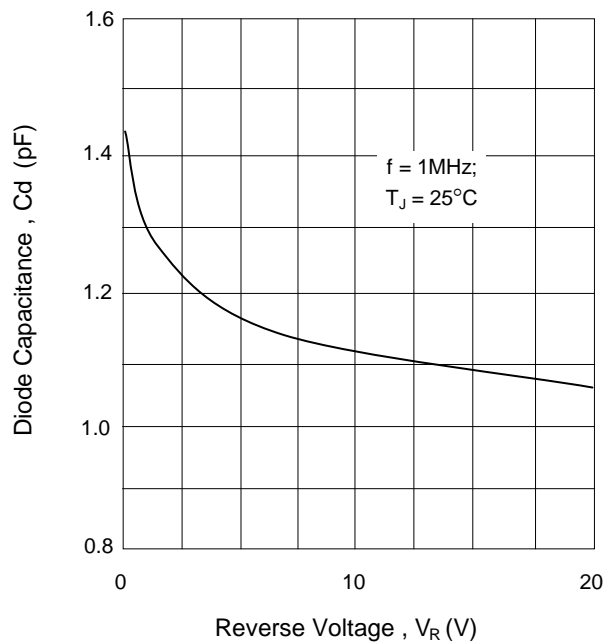


FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE

