

BAS15

HIGH SPEED SWITCHING DIODE

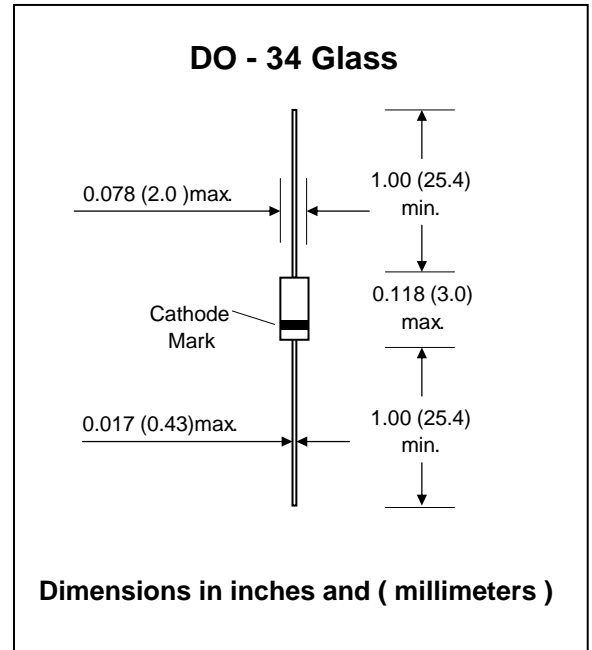
FEATURES :

- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 50 V
- Repetitive peak reverse voltage: max. 50 V
- Repetitive peak forward current: max. 225 mA.
- Pb / RoHS Free

MECHANICAL DATA :

Case: DO-34 Glass Case

Weight: approx. 0.11g



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}	50	V
Maximum Continuous Reverse Voltage	V_{RM}	50	V
Maximum Continuous Forward Current , $T_a = 150\text{ }^\circ\text{C}$	I_F	100	mA
Maximum Repetitive Peak Forward Current	I_{FRM}	225	mA
Maximum Power Dissipation	P_D	350	mW
Maximum Non-repetitive Peak Forward Current at $t < 1\text{ s}$, $T_j = 25\text{ }^\circ\text{C}$	I_{FSM}	0.5	A
Maximum Junction Temperature	T_J	200	$^\circ\text{C}$
Storage Temperature Range	T_S	-65 to + 200	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	I_R	$V_R = 50\text{ V}$	-	-	200	nA
		$V_R = 50\text{ V}$, $T_j = 150\text{ }^\circ\text{C}$	-	-	100	μA
Forward Voltage	V_F	$I_F = 100\text{ mA}$	-	-	1.1	V
Diode Capacitance	C_d	$f = 1\text{ MHz}$; $V_R = 0$	-	-	2.0	pF
Reverse Recovery Time	T_{rr}	$I_F = 10\text{ mA}$ to $I_R = 60\text{ mA}$ $R_L = 100\ \Omega$; Measured at $I_R = 1\text{ mA}$	-	-	4	ns

RATING AND CHARACTERISTIC CURVES (BAS15)

FIG. 1 MAXIMUM PERMISSIBLE CONTINUOUS FORWARD CURRENT AS A FUNCTION OF AMBIENT TEMPERATURE.

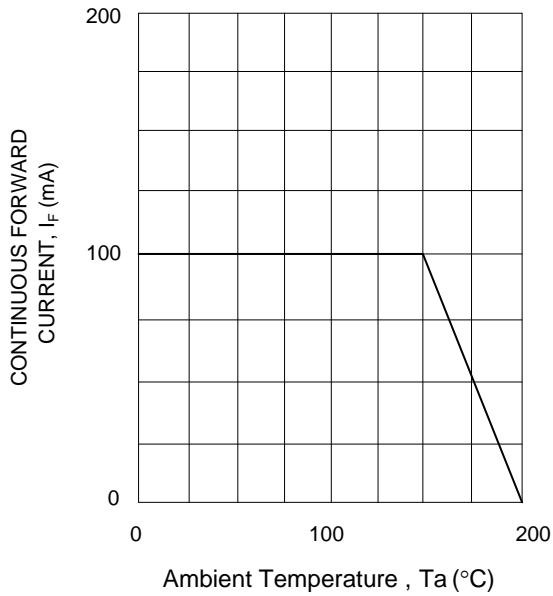


FIG. 2 TYPICAL FORWARD VOLTAGE

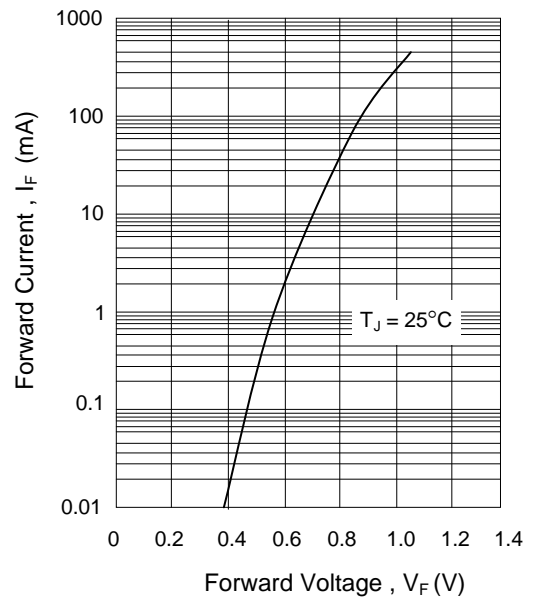


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

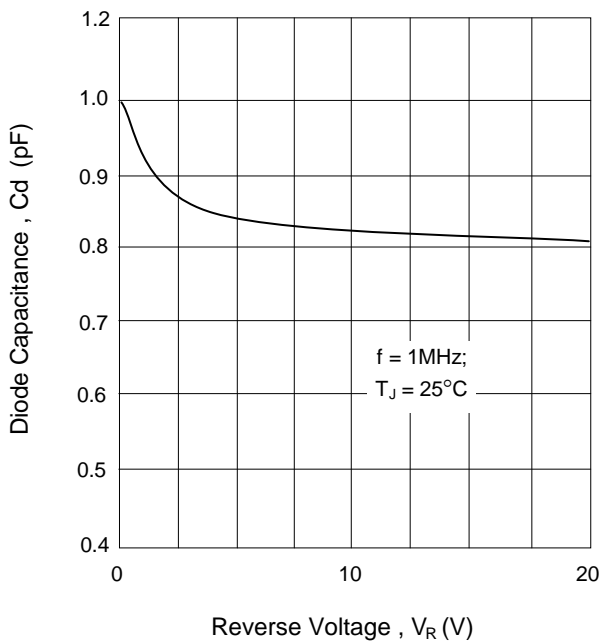


FIG. 4 TYPICAL REVERSE CURRENT VS JUNCTION TEMPERATURE

