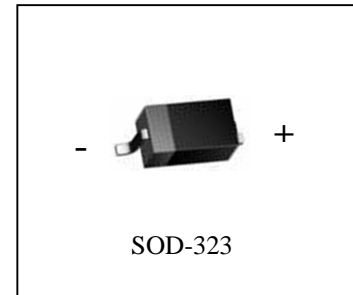


High-Speed Diode

BAS316

■ Features

- Very small plastic SMD package
- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 75 V
- Repetitive peak reverse voltage: max. 85 V
- Repetitive peak forward current: max. 500 mA.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit	
repetitive peak reverse voltage	VRRM	85	V	
continuous reverse voltage	VR	75	V	
continuous forward current	IF	250	mA	
repetitive peak forward current	IFRM	500	mA	
non-repetitive peak forward current	IFSM	t = 1 ms	4	A
		t = 1 μs	1	A
		t = 1 s	0.5	A
power dissipation	PD	400	mW	
junction temperature	Tj	150	°C	
storage temperature	Tstg	-65 to +150	°C	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Forward voltage	VF	IF = 1 mA			715	mV
		IF = 10 mA			855	mV
		IF = 50 mA			1	v
		IF = 150 mA			1.25	v
Leakage current	IR	VR = 25 V			30	nA
		VR = 75 V			1	μA
		VR = 25 V; Tj = 150 °C			30	μA
		VR = 75 V; Tj = 150 °C			50	μA
Junction Capacitance	CJ	VR = 0, f = 1.0MHz			1.5	pF
reverse recovery time	trr	when switched from IF = 10 mA to IR = 10mA; RL = 100 Ω; measured at IR = 1 mA			4	ns

BAS316 Typical Characteristics

FIG 1 Typical Forward Characteristics

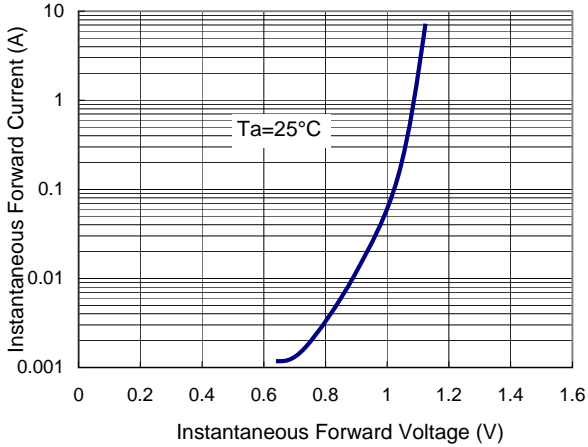


FIG 2 Reverse Current vs Reverse Voltage

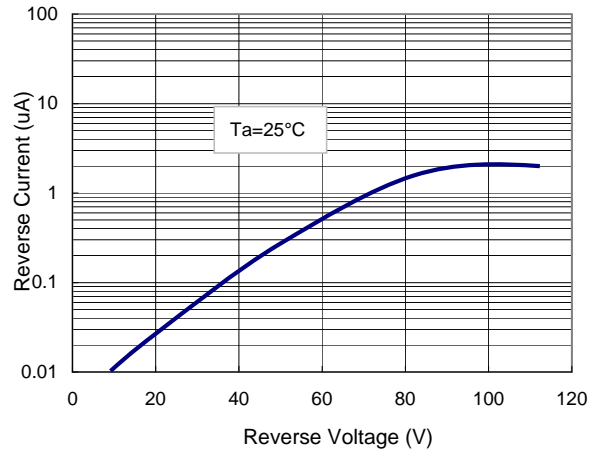


FIG 3 Admissible Power Dissipation Curve

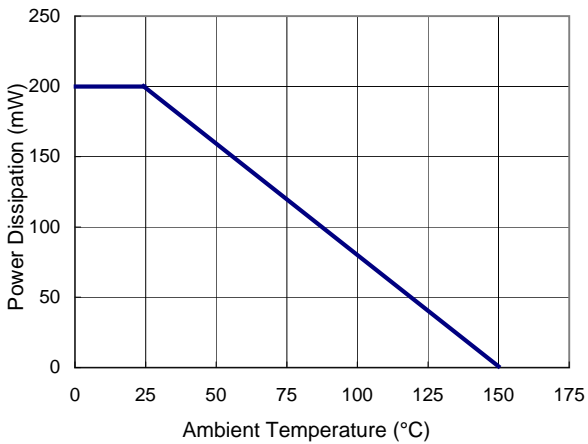


FIG 4 Typical Junction Capacitance

