

BAS216WS

HIGH SPEED SWITCHING DIODE

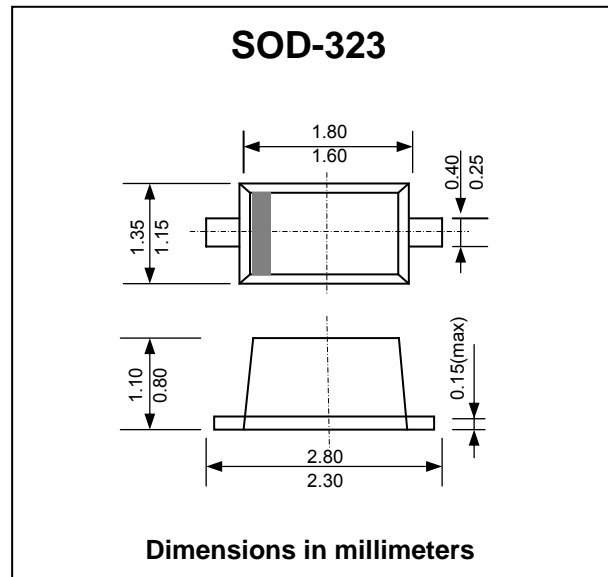
PRV : 85 Volts
Io : 250 mA

FEATURES :

- * Ultra small plastic SMD package
- * High switching speed: max. 4 ns
- * Reverse voltage: max. 75 V
- * Repetitive peak reverse voltage: max. 85 V
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SOD-323 plastic Case
- * Weight : approx. 0.004 g



ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Maximum Reverse Voltage	V_R	75	V
Maximum Continuous Forward Current	I_F	250	mA
Maximum Non-repetitive Peak Forward Current	$t = 1 \mu s$	4.0	A
	$t = 1 ms$	1.0	
	$t = 1 s$	0.5	
Power Dissipation	P_{tot}	400	mW
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS (Ta = 25 °C unless otherwise specified)

Parameter	Test Condition	Symbol	Max.	Unit
Forward Voltage	$I_F = 1 mA$	V_F	715	mV
	$I_F = 10 mA$		855	mV
	$I_F = 50 mA$		1.00	V
	$I_F = 150 mA$		1.25	V
Reverse Current	$V_R = 25 V$	I_R	30	nA
	$V_R = 75 V$		1.0	μA
	$V_R = 25 V, T_J = 150 °C$		30	μA
	$V_R = 75 V, T_J = 150 °C$		50	μA
Diode Capacitance	$V_R = 0 V, f = 1 MHz$	C_{tot}	1.5	pF
Reverse Recovery Time	when switched from $I_F = 10 mA$ to $I_R = 10 mA$; $R_L = 100 \Omega$; measure at $I_R = 1 mA$	T_{rr}	4	ns

RATINGS AND CHARACTERISTIC CURVES (BAS216WS)

FIG.1 - MAXIMUM PERMISSIBLE TOTAL POWER DISSIPATION AS A FUNCTION OF AMBIENT TEMPERATURE

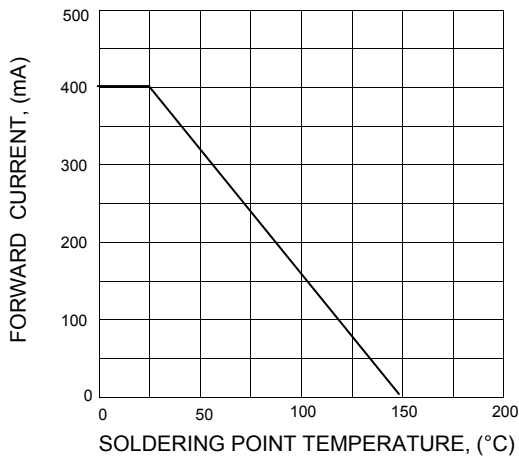


FIG.2 - DIODE CAPACITANCE VS. REVERSE VOLTAGE; TYPICAL VALUES

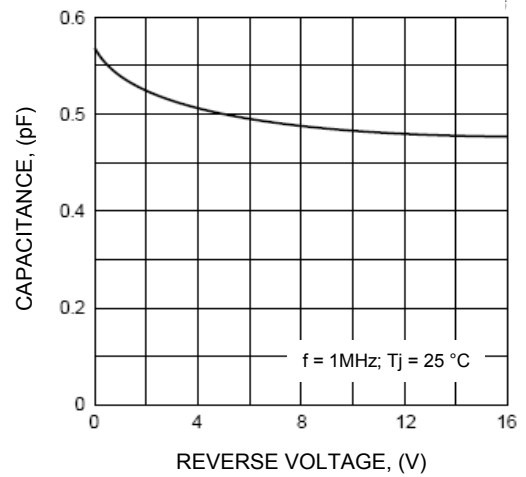


FIG.3 - FORWARD CURRENT VS. FORWARD VOLTAGE ; TYPICAL VALUES

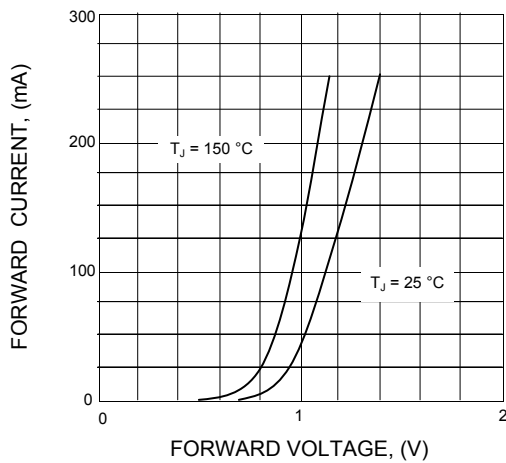


FIG.4 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

