

# BAS216WT

## HIGH SPEED SWITCHING DIODE

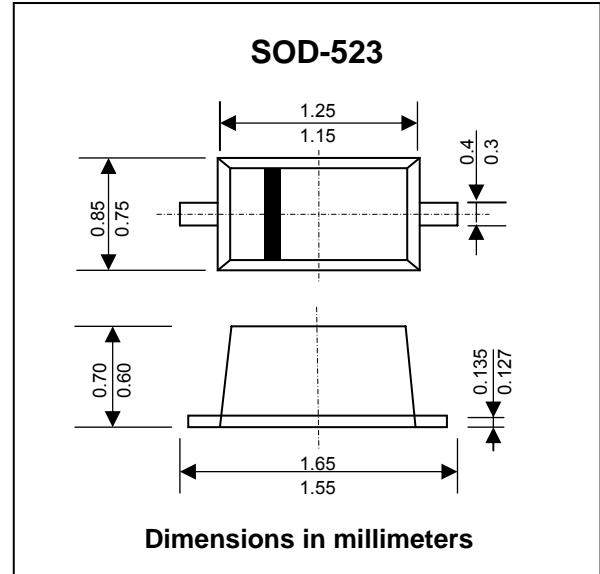
**PRV : 85 Volts**  
**Io : 250 mA**

### 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-523 plastic Case
- \* Weight : approx. 0.001 g



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

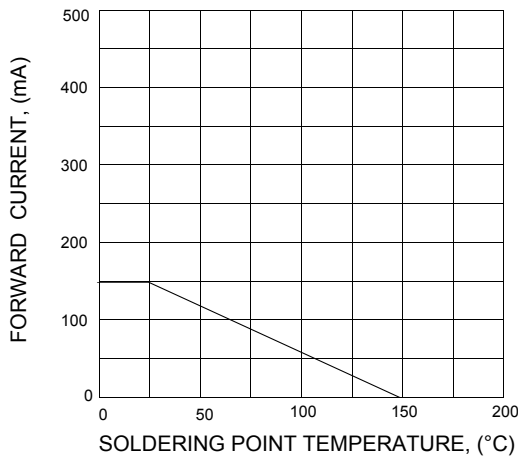
Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	85	V
Maximum Reverse Voltage	$V_R$	75	V
Maximum Continuous Forward Current	$I_F$	250	mA
Maximum Non-repetitive Peak Forward Current	$t = 1 \mu s$	4.0	A
	$t = 1 ms$	1.0	
	$t = 1 s$	0.5	
Power Dissipation	$P_{tot}$	150	mW
Junction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

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

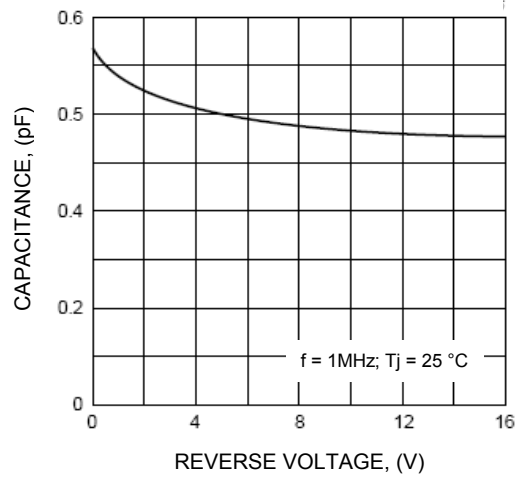
Parameter	Test Condition	Symbol	Max.	Unit
Forward Voltage	$I_F = 1 mA$	$V_F$	715	mV
	$I_F = 10 mA$		855	mV
	$I_F = 50 mA$		1.00	V
	$I_F = 150 mA$		1.25	V
Reverse Current	$V_R = 25 V$	$I_R$	30	nA
	$V_R = 75 V$		1.0	μA
	$V_R = 25 V, T_j = 150 °C$		30	μA
	$V_R = 75 V, T_j = 150 °C$		50	μA
Diode Capacitance	$V_R = 0 V, f = 1 MHz$	$C_{tot}$	2	pF
Forward Recovery Time	at $I_F = 10 mA, t_r = 20 ns$	$V_{fr}$	1.75	V
Reverse Recovery Time	at $I_F = 10 mA, t_{off} = 10 mA, I_R = 1 mA, R_L = 100 \Omega$	$T_{rr}$	4.0	ns

**RATINGS AND CHARACTERISTIC CURVES ( BAS216WT )**

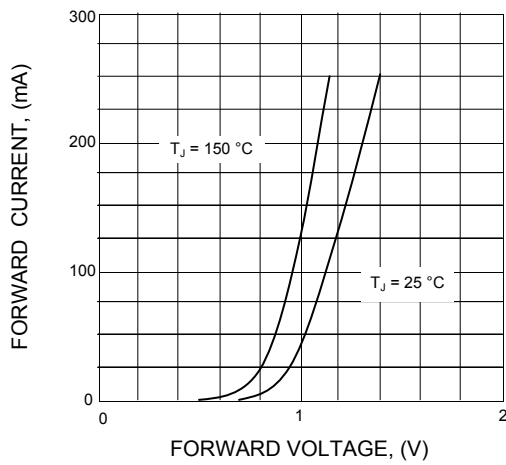
**FIG.1 - MAXIMUM PERMISSIBLE TOTAL POWER DISSIPATION AS A FUNCTION OF AMBIENT TEMPERATURE**



**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**

