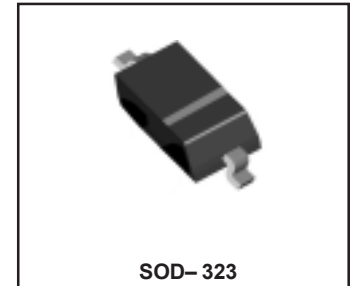


**HIGH VOLTAGE
 SWITCHING DIODE**



ORDERING INFORMATION

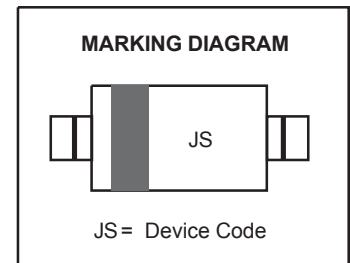
Device	Marking	Shipping
BAS21H	JS	3000/Tape & Reel

Pb-Free package is available

RoHS product for packing code suffix "G"

Halogen free product for packing code suffix "H"

Moisture Sensitivity Level 1



MAXIMUM RATINGS

Polarity: Color band denotes cathode end

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	250	Vdc
Peak Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	625	mAdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board,* $T_A = 25^\circ\text{C}$	P_D	200	mW
Derate above 25°C		1.57	mW/ $^\circ\text{C}$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

*FR-5 Minimum Pad

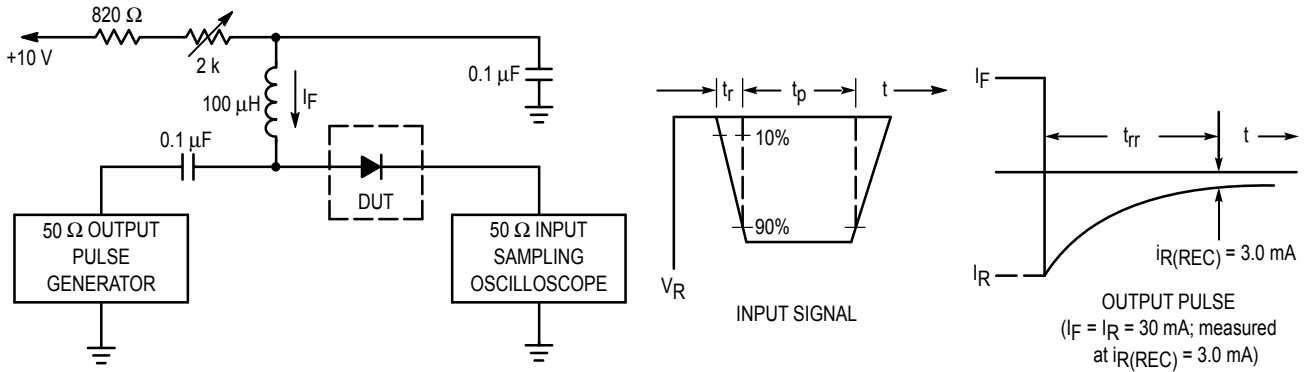
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Reverse Voltage Leakage Current ($V_R = 200\text{ Vdc}$) ($V_R = 200\text{ Vdc}, T_J = 150^\circ\text{C}$)	I_R	-	0 μA 100	μAdc
Reverse Breakdown Voltage ($I_{BR} = 100\ \mu\text{Adc}$)	$V_{(BR)}$	250	-	Vdc
Forward Voltage ($I_F = 100\ \text{mAdc}$) ($I_F = 200\ \text{mAdc}$)	V_F	-	1000 1250	mV
Diode Capacitance ($V_R = 0, f = 1.0\ \text{MHz}$)	C_D	-	5.0	pF
Reverse Recovery Time ($I_F = I_R = 30\ \text{mAdc}, R_L = 100\ \Omega$)	t_{rr}	-	50	ns

BAS21H



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 30 mA.
 2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 30 mA.
 3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

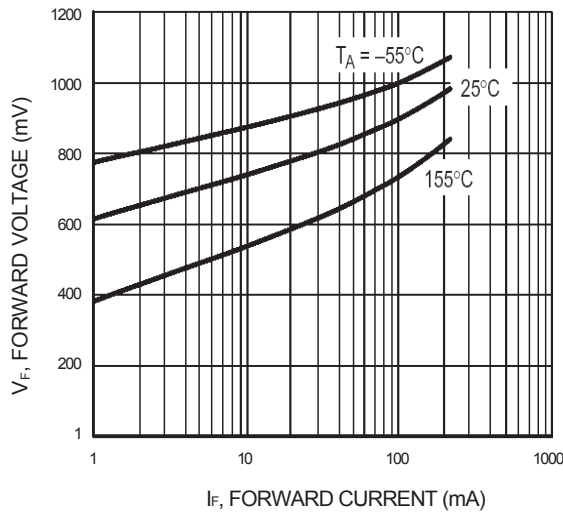


Figure 1. Forward Voltage

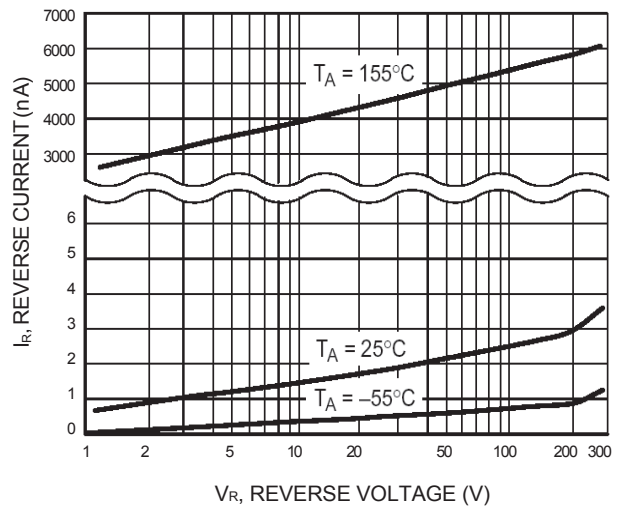
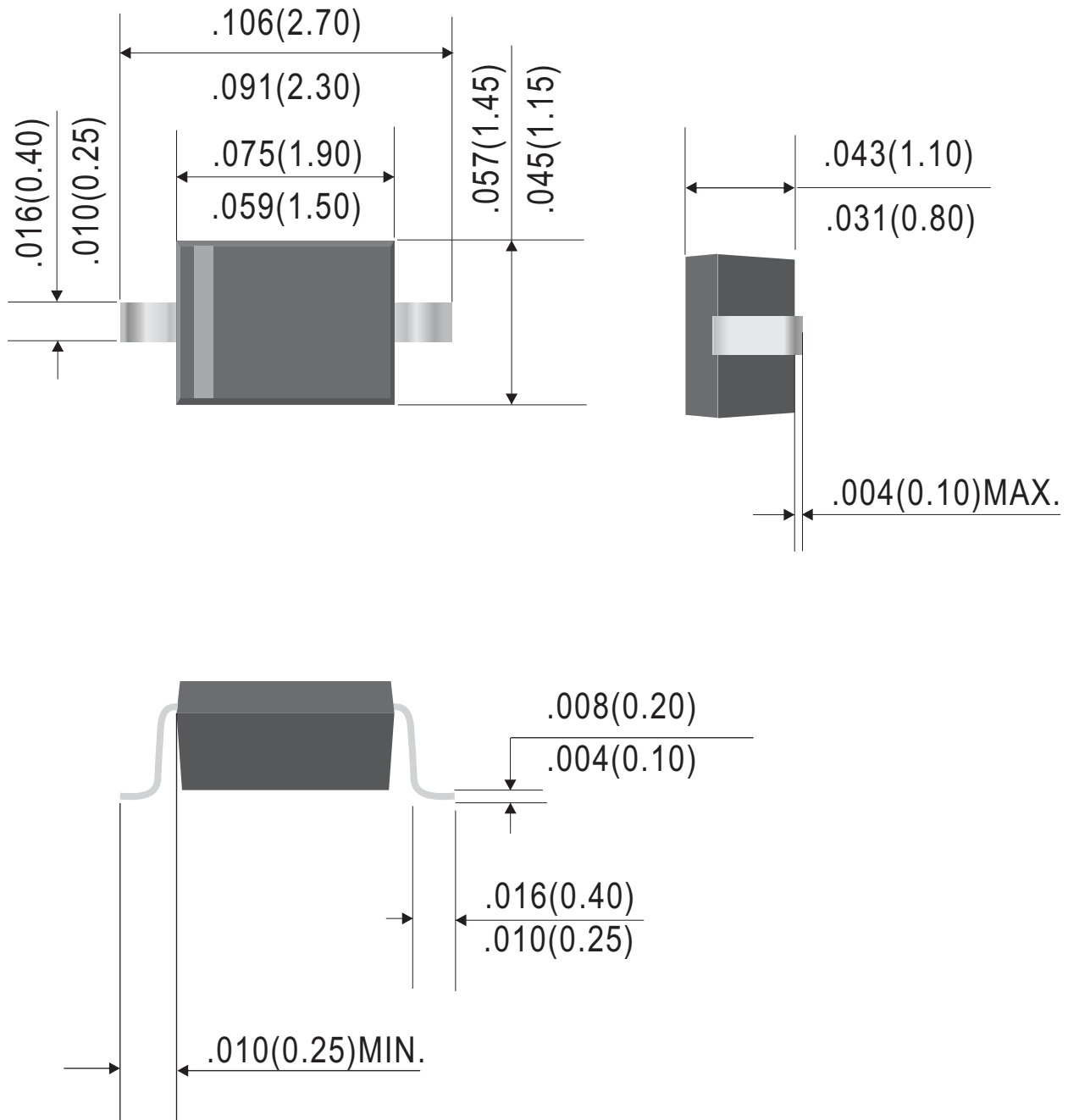


Figure 2. Reverse Leakage



Outline Drawing

SOD-323



Dimensions in inches and (millimeters)