



Small Signal Fast Switching Diode



FEATURES

- Silicon epitaxial planar diode
- Fast switching diode
- Also available in case SOT-23 with designation BAS16
- AEC-Q101 qualified
- Material categorization:
For definitions of compliance please see www.vishay.com/doc?99912



RoHS COMPLIANT

MECHANICAL DATA

Case: SOD-323
Weight: approx. 4.3 mg
Packaging codes/options:
 GS18/10K per 13" reel (8 mm tape), 10K/box
 GS08/3K per 7" reel (8 mm tape), 15K/box

PARTS TABLE				
PART	ORDERING CODE	TYPE MARKING	INTERNAL CONSTRUCTION	REMARKS
BAS16WS-V	BAS16WS-V-GS18 or BAS16WS-V-GS08	A6	Single diode	Tape and reel

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		V _R	75	V
Repetitive peak reverse voltage		V _{RRM}	100	V
Forward current (continuous)		I _F	250	mA
Non-repetitive peak forward current	t = 1 μs	I _{FSM}	2	A
	t = 1 ms	I _{FSM}	1	A
	t = 1 s	I _{FSM}	0.5	A
Power dissipation		P _{tot}	200	mW

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air		R _{thJA}	650	K/W
Junction temperature		T _j	150	°C
Storage temperature range		T _{stg}	- 65 to + 150	°C



ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 1\text{ mA}$	V_F			715	mV
	$I_F = 10\text{ mA}$	V_F			855	mV
	$I_F = 50\text{ mA}$	V_F			1000	mV
	$I_F = 150\text{ mA}$	V_F			1250	mV
Leakage current	$V_R = 25\text{ V}, T_J = 150\text{ }^{\circ}\text{C}$	I_R			30	μA
	$V_R = 75\text{ V}$	I_R			1	μA
	$V_R = 75\text{ V}, T_J = 150\text{ }^{\circ}\text{C}$	I_R			50	μA
Diode capacitance	$V_R = 0, f = 1\text{ MHz}$	C_D			2	pF
Reverse recovery time	$I_F = 10\text{ mA}, I_R = 10\text{ mA}, I_R = 1\text{ mA}, R_L = 100\text{ }\Omega$	t_{rr}			6	ns

TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

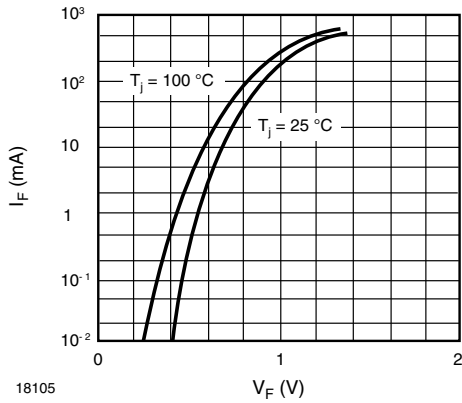


Fig. 1 - Forward Characteristics

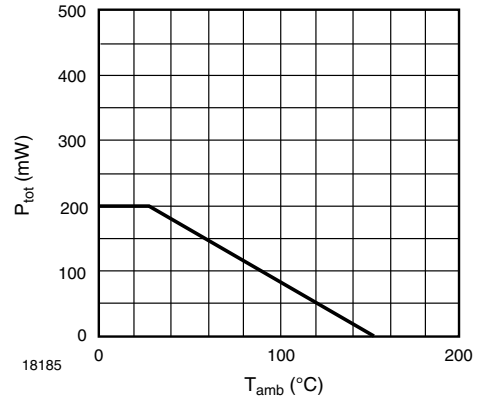


Fig. 3 - Admissible Power Dissipation vs. Ambient Temperature

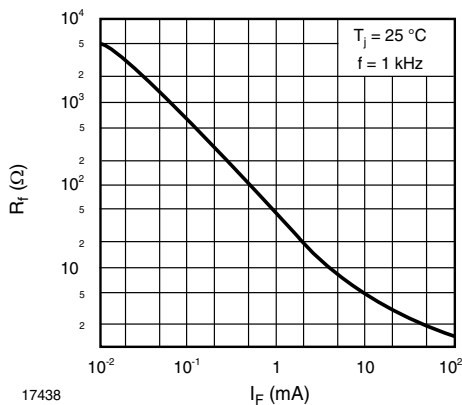


Fig. 2 - Dynamic Forward Resistance vs. Forward Current

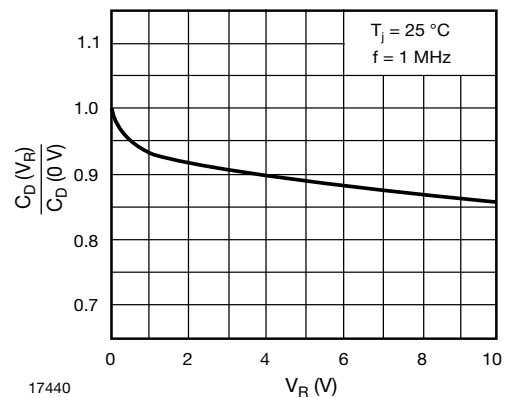


Fig. 4 - Relative Capacitance vs. Reverse Voltage

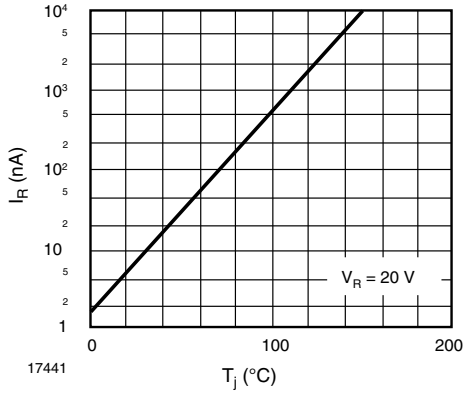
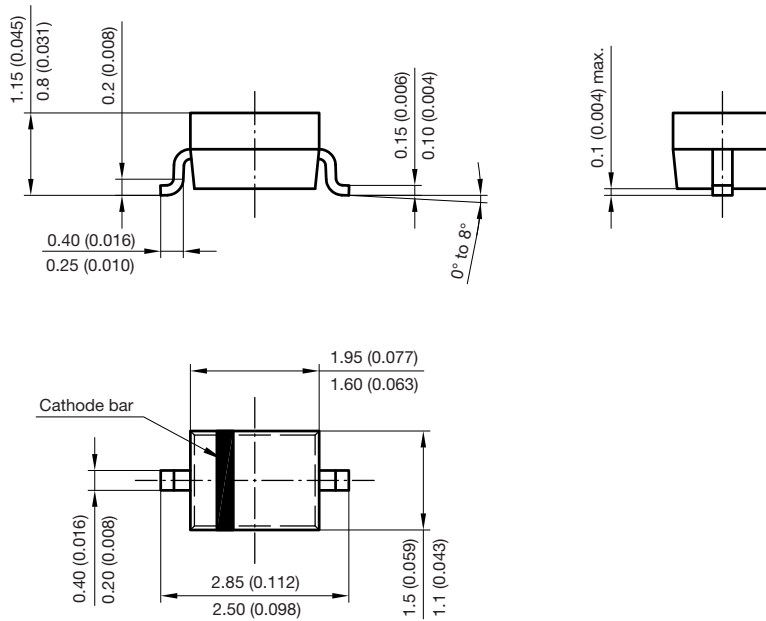
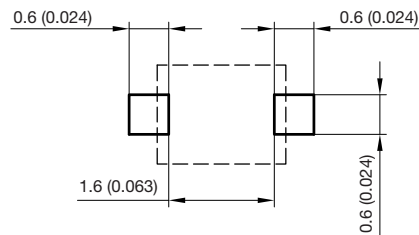


Fig. 5 - Leakage Current vs. Junction Temperature

PACKAGE DIMENSIONS in millimeters (inches): **SOD-323**



Foot print recommendation:



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 17443



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