



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Small Signal Switching Diodes, High Voltage



FEATURES

- Silicon epitaxial planar diodes
- For general purpose
- AEC-Q101 qualified available (part number on request)
- Base P/N-G3 - green, commercial grade
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



DESIGN SUPPORT TOOLS

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MECHANICAL DATA

Case: SOD-123

Weight: approx. 9.4 mg

Packaging codes / options:

18/10K per 13" reel (8 mm tape), 10K/box

08/3K per 7" reel (8 mm tape), 15K/box

PARTS TABLE					
PART	TYPE DIFFERENTIATION	ORDERING CODE	TYPE MARKING	CIRCUIT CONFIGURATION	REMARKS
BAV19W-G	V _R = 100 V	BAV19W-G3-08 or BAV19W-G3-18	AS	Single	Tape and reel
BAV20W-G	V _R = 150 V	BAV20W-G3-08 or BAV20W-G3-18	AT	Single	Tape and reel
BAV21W-G	V _R = 200 V	BAV21W-G3-08 or BAV21W-G3-18	AU	Single	Tape and reel

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Continuous reverse voltage		BAV19W-G	V _R	100	V
		BAV20W-G	V _R	150	V
		BAV21W-G	V _R	200	V
Repetitive peak reverse voltage		BAV19W-G	V _R RM	120	V
		BAV20W-G	V _R RM	200	V
		BAV21W-G	V _R RM	250	V
DC forward current ⁽¹⁾			I _F	250	mA
Rectified current (average) half wave rectification with resist. load ⁽¹⁾			I _{F(AV)}	200	mA
Repetitive peak forward current ⁽¹⁾	f ≥ 50 Hz		I _{FRM}	625	mA
Surge forward current	t < 1 s		I _{FSM}	1	A
Power dissipation ⁽¹⁾			P _{tot}	410	mW

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air ⁽¹⁾		R _{thJA}	375	K/W
Junction temperature ⁽¹⁾		T _j	150	°C
Storage temperature range ⁽¹⁾		T _{stg}	-65 to +150	°C
Operating temperature range		T _{op}	-55 to +150	°C

Note

⁽¹⁾ Valid provided that leads are kept at ambient temperature



ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I _F = 100 mA		V _F			1	V
	I _F = 200 mA		V _F			1250	mV
Leakage current	V _R = 100 V	BAV19W-G	I _R			100	nA
	V _R = 100 V, T _J = 100 °C	BAV19W-G	I _R			15	μA
	V _R = 150 V	BAV20W-G	I _R			100	nA
	V _R = 150 V, T _J = 100 °C	BAV20W-G	I _R			15	μA
	V _R = 200 V	BAV21W-G	I _R			100	nA
	V _R = 200 V, T _J = 100 °C	BAV21W-G	I _R			15	μA
Dynamic forward resistance	I _F = 10 mA		r _f		5		Ω
Diode capacitance	V _R = 0, f = 1 MHz		C _D		1.5		pF
Reverse recovery time	I _F = 30 mA, I _R = 30 mA, i _R = 3 mA, R _L = 100 Ω		t _{rr}			50	ns

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

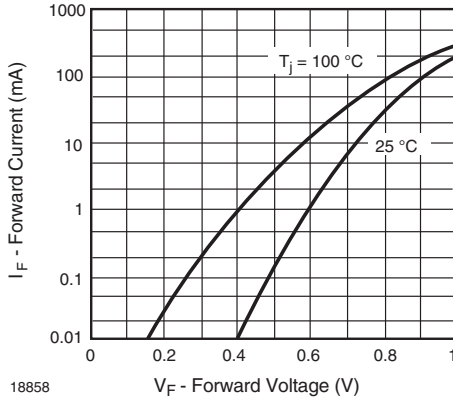


Fig. 1 - Forward Current vs. Forward Voltage

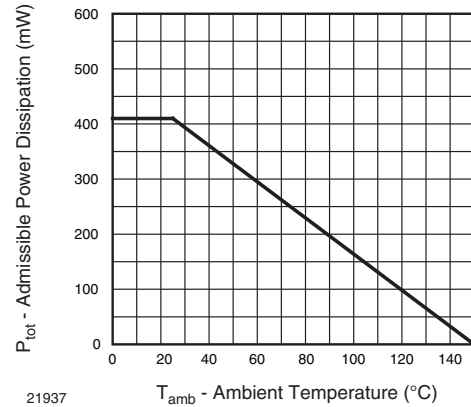


Fig. 3 - Admissible Power Dissipation vs. Ambient Temperature

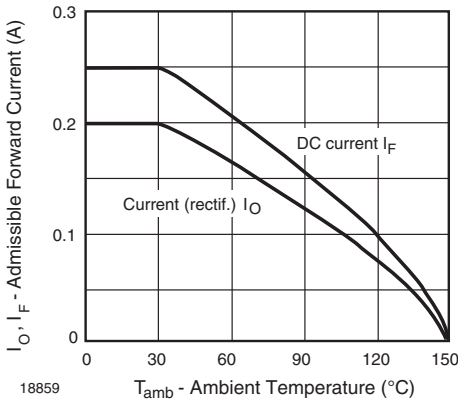


Fig. 2 - Admissible Forward Current vs. Ambient Temperature

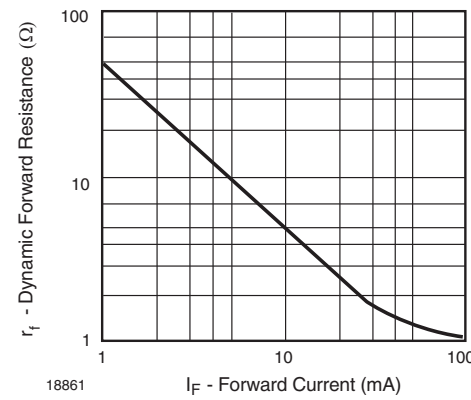


Fig. 4 - Dynamic Forward Resistance vs. Forward Current

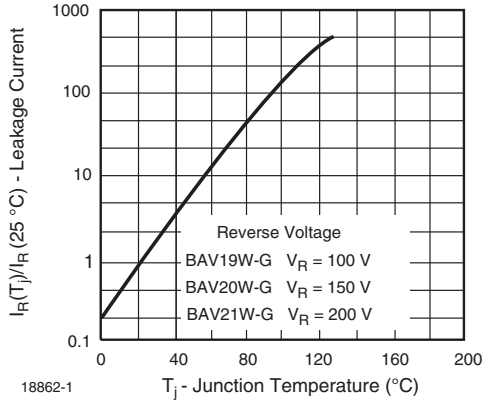


Fig. 5 - Leakage Current vs. Junction Temperature

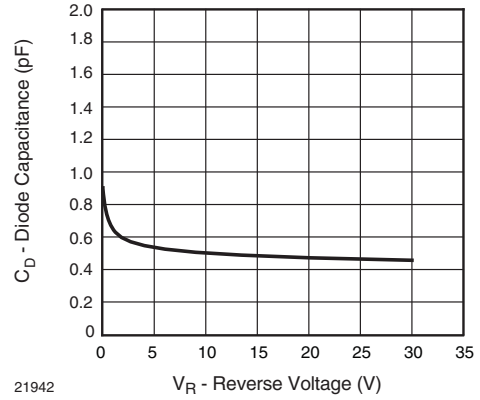


Fig. 6 - Diodes Capacitance vs. Reverse Voltage

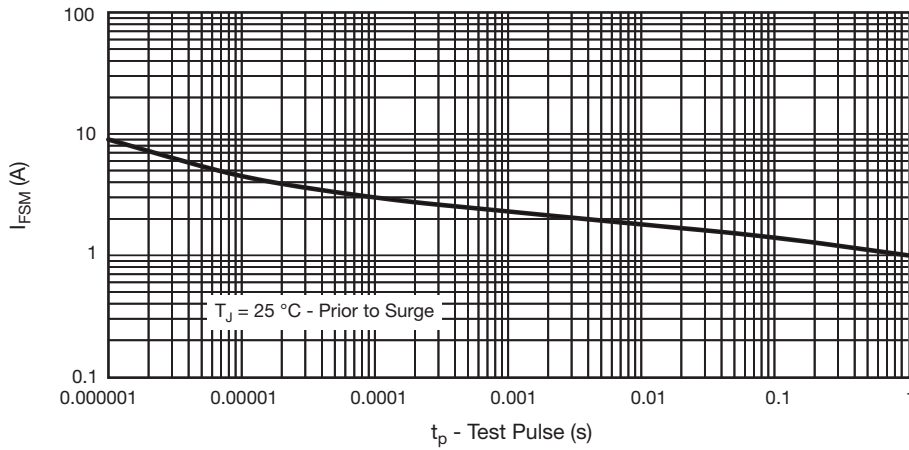
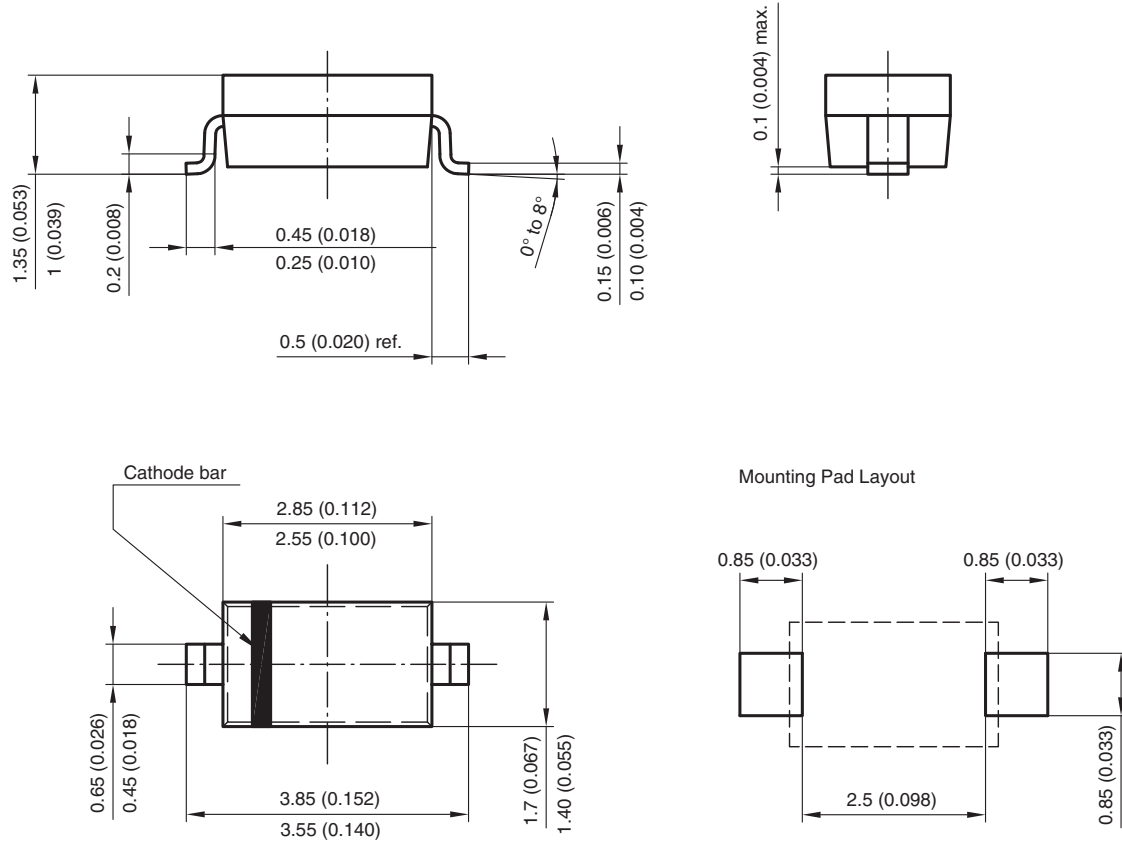


Fig. 7 - Non-Repetitive Peak Forward Current vs. Pulse Duration
Maximum Admissible Values of Square Pulses



PACKAGE DIMENSIONS in millimeters (inches): SOD-123



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