

BAS16

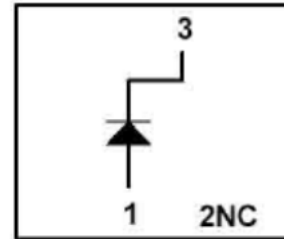
BAS16 Fast Switching Diode

General description

SOT-23 Plastic-Encapsulate Switching Diode

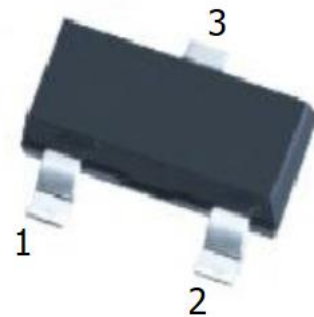
FEATURES

- Fast Switching Device (TRR <6.0 nS)
- Power Dissipation of 225mW
- High Stability and High Reliability Green EMC
- Low reverse leakage



Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	225	mW
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	+150	$^\circ\text{C}$
V_{RSM}	Non-Repetitive Peak Reverse Voltage	100	V
V_{RRM}	Repetitive Peak Reverse Voltage	75	V
I_{FRM}	Repetitive Peak Forward Current	300	mA
I_O	Continuous Forward Current	150	mA
I_{FSM}	Peak Forward Surge Current (Pulse Width=1us)	2	A



DEVICE MARKING CODE:

Device Type	Device Marking
BAS16	A6 or 5D

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
$V_{(BR)}$	Reverse Voltage	$I_R=100\mu\text{A}$	75		V
I_R	Reverse Leakage Current	$V_R=75$	---	1	μA
V_F	Forward Voltage	$I_F=1.0\text{mA}$	---	0.715	V
		$I_F=10\text{mA}$	---	0.855	
		$I_F=50\text{mA}$	---	1.00	
		$I_F=150\text{mA}$	---	1.25	
TRR	Reverse Recovery Time	$I_F= I_R=10\text{mA}$	---	6	nS
		$R_L=100\Omega$			
		$I_{RR}=0.1 \times I_R$			
CT	Capacitance	$V_R=0\text{V}, f=1\text{MHZ}$	---	2	pF

Typical Performance Characteristics

Fig. 1 Typical Forward Characteristics

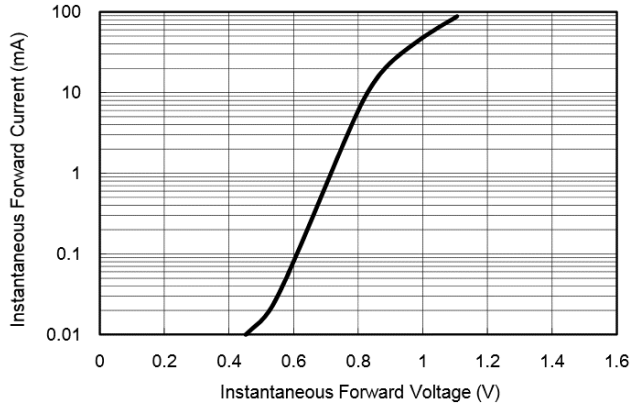


Fig. 2 Reverse Current VS. Reverse Voltage

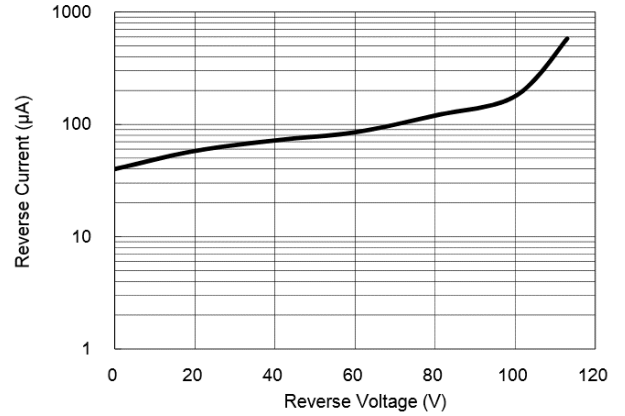


Fig. 3 Admissible Power Dissipation Curve

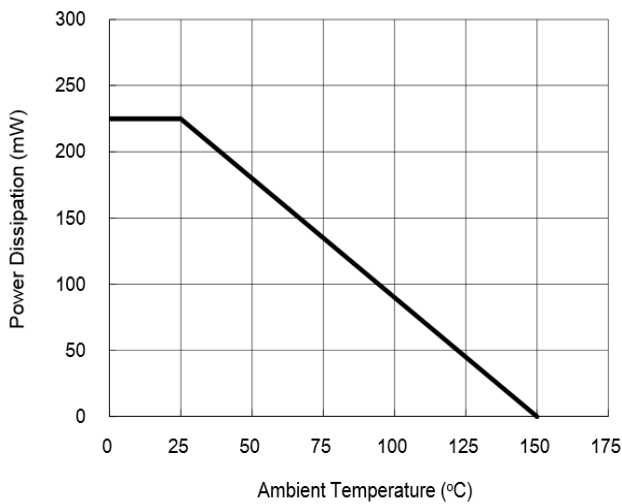
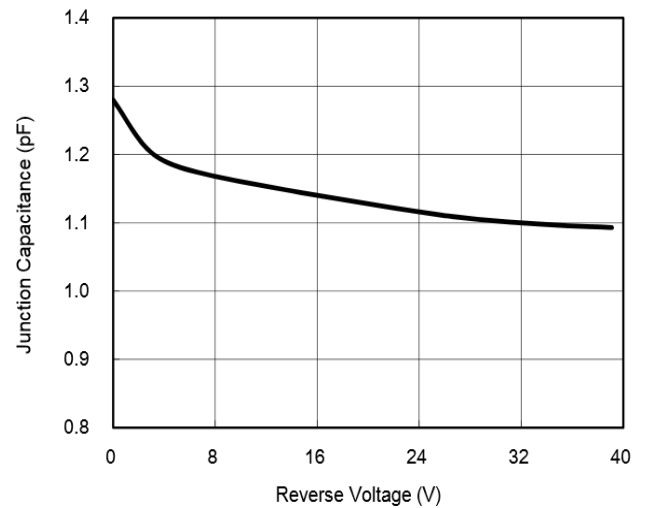
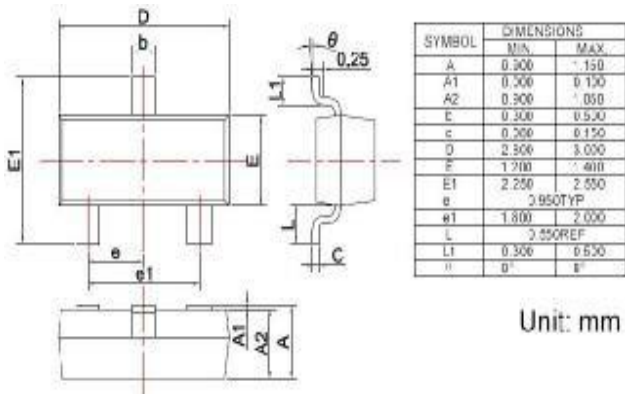


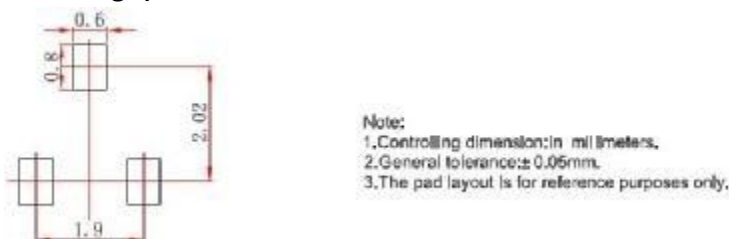
Fig. 4 Typical Junction Capacitance



SOT-23 PACKAGE OUTLINE



PCB Design(Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs)



Important Notice and Disclaimer

DOESHARE has used reasonable care in preparing the information included in this document, but DOESHARE does not warrant that such information is error free. DOESHARE assumes no liability whatsoever for any damages incurred by you resulting from errors in or omissions from the information included herein.

DOESHARE no warranty, representation or guarantee regarding the documents, circuits and products specification, DOESHARE reservation rights to make changes for any documents, products, circuits and specifications at any time without notice.

Purchasers are solely responsible for the choice, selection and use of the DOESHARE products and services described herein, and DOESHARE assumes no liability whatsoever relating to the choice, selection or use of the products and services described herein.

No license, express or implied, by implication or otherwise under any intellectual property rights of DOESHARE.

Resale of DOESHARE products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by DOESHARE for the DOESHARE product or service described herein and shall not create or extend in any manner whatsoever, any liability of DOESHARE.