

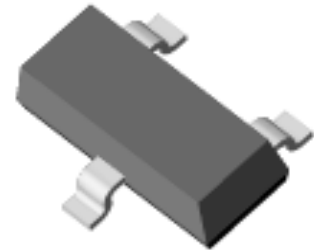


SURFACE MOUNT SWITCHING DIODE BAS19~BAS21

Surface Mount Switching Diode

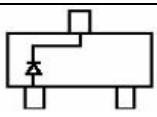
Features

- Low turn on Voltage
- Fast Switching speed
- Guard ring for transient and ESD protection



RoHS
COMPLIANT

Mechanical Data

Case:	SOT-23, Transfer molded plastic
Pinout:	See diagram  Pinout
Terminals:	Solderable per MIL-STD-202E, Method 208C
Polarity:	Color band denotes cathode end
Mounting position:	
Weight:	0.00028 Ounce, 0.008 gram

SOT-23

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	BAS19	BAS20	BAS21	Unit	Conditions
VRRM	Non-Repetitive Peak Reverse Voltage	120	200	250	V	
VRMS	Max Repetitive Peak Reverse Voltage	100	150	200	V	
Vrms	Forward Continuous Current	71	106	141	V	
t _{rr}	Max Reverse Recovery Time	50			nS	IF= 10mA, IR=10mA, IRR=1mA, RL=100Ω
IFSM	Non-Repetitive Peak Forward Aurge Current	2.5			Amps	T=1.0μS, T=1.0S
		0.5				
PTOT	Power dissipation	250			mW	Note 1
VBRR	Minimum Reverse Breakdown Voltage	75			V	100μA pulses
TJ, TSTG	Operating and Storage Temperature	-55 to +150			°C	

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

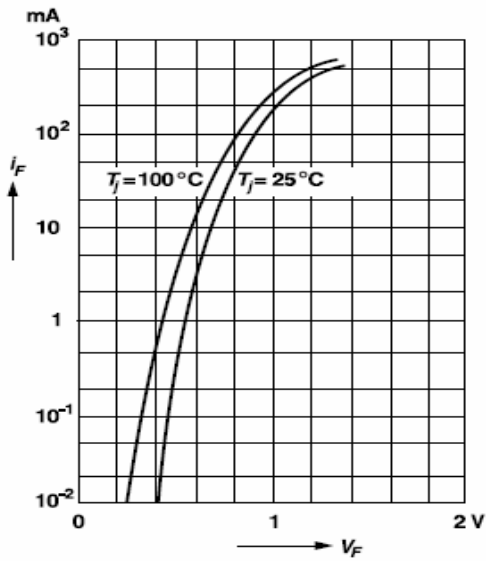
Symbol	Description		Unit	Conditions
VF	Maximum Forward Voltage	1.0	V	100mA
		1.25		200mA
IR	Maximum Leakage Current,(Note 1)	100	μA nA	TJ=25°C
		15		TJ=100°C
CJ	Typical Junction Capacitance	5.0	pF	Vf=1V, f=1MHZ
Rθ-JA	Typical Thermal Resistance	450	°C/W	

Note:

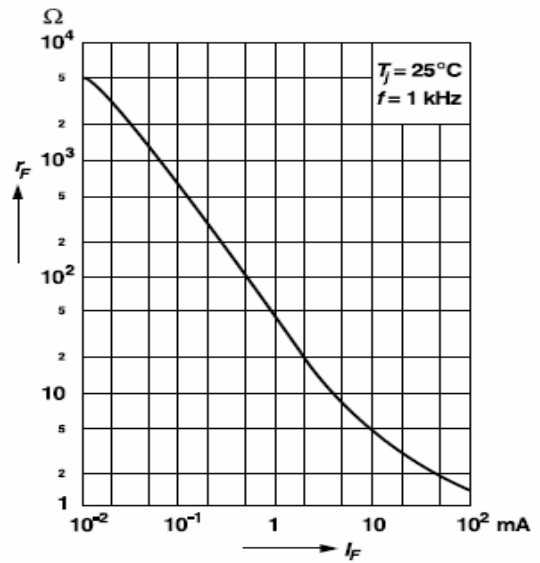
1. Short duration pulse test used

Ratings And Characteristic Curve

Forward characteristics

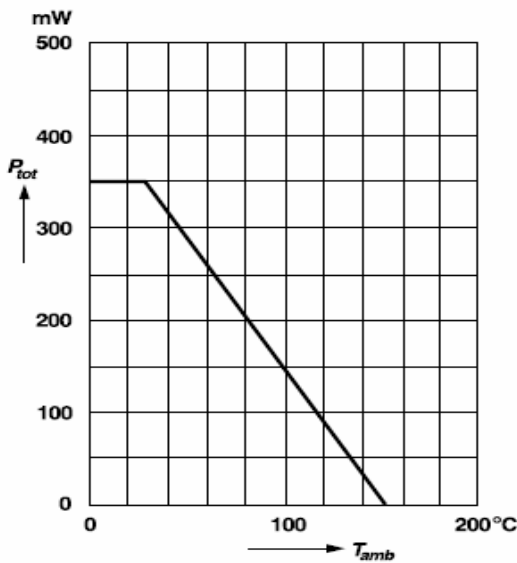


Dynamic forward resistance versus forward current

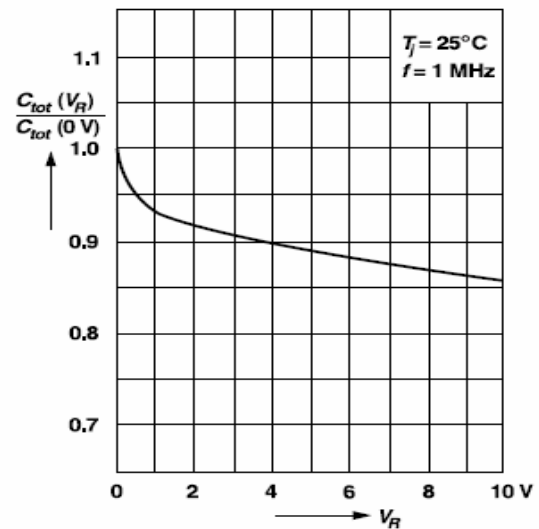


Admissible power dissipation versus ambient temperature

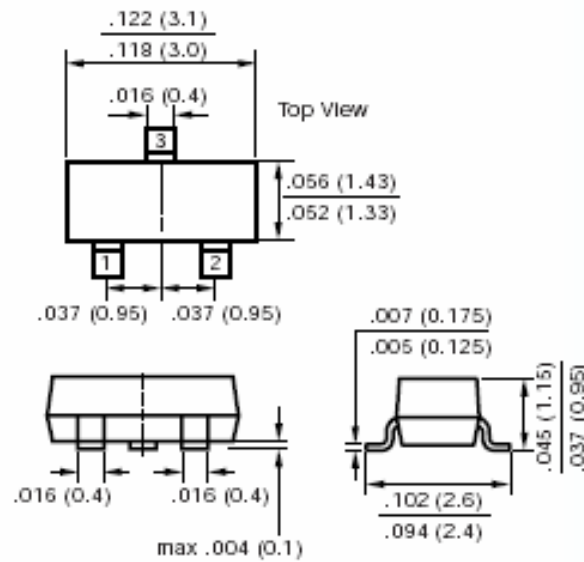
For conditions, see footnote in table "Absolute Maximum Ratings"



Relative capacitance versus reverse voltage



Dimensions in inch (mm)

**SOT-23****Contact us:****US HEADQUARTERS****MEI SEMI INC.**

2902 Corvin Drive, Santa Clara, CA95051, USA

Tel: 1-408-733-0808 Fax: 1-408-733-2828