

Small Signal Product

Surface Mount Fast Switching Diode

FEATURES

- Fast switching speed
- Surface mount device type
- High conductance
- For general purpose switching applications
- Packing code with suffix "G" means green compound (halogen-free)

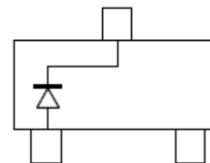


SOT-23



MECHANICAL DATA

- Case: SOT-23 small outline plastic package
- Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed : 260°C/10s
- Weight: 8 ± 0.5 mg
- BAS19 Marking Code: JP
- BAS20 Marking Code: JR



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)				
PARAMETER	SYMBOL	BAS19	BAS20	UNIT
Working Peak Reverse Voltage DC Blocking Voltage	V _{RM}	100	150	V
Average Rectifier Output Current	I _O	200		mA
Power Dissipation	P _D	250		mW
Thermal Resistance Junction to Ambient Air	R _{θJA}	500		°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150		°C

Electrical Characteristics

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage BAS19 I _R = 100 μA BAS20 I _R = 100 μA	V _{R(BR)}	100	-	V
		150		
Peak Reverse Current BAS19 V _R = 100 V BAS20 V _R = 150 V	I _R	-	0.1	μA
Forward Voltage I _F = 100 mA I _F = 200 mA	V _F	-	1.0	V
			1.25	
Junction Capacitance V _R = 0 V , f = 1.0 MHz	C _J	-	5	pF
Reverse Recovery Time I _F = I _R = 30 mA , I _{RR} = 0.1 × I _R	t _{rr}	-	50.0	ns

Small Signal Product

RATINGS AND CHARACTERISTICS CURVES

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

Fig. 1 Forward Characteristics

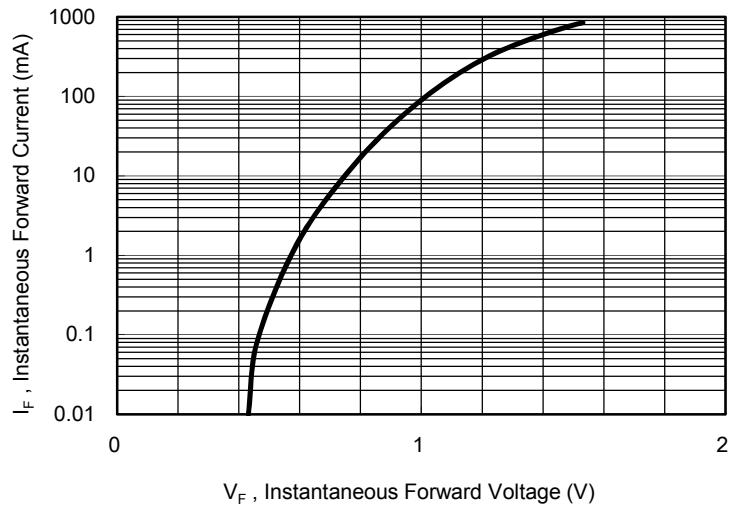
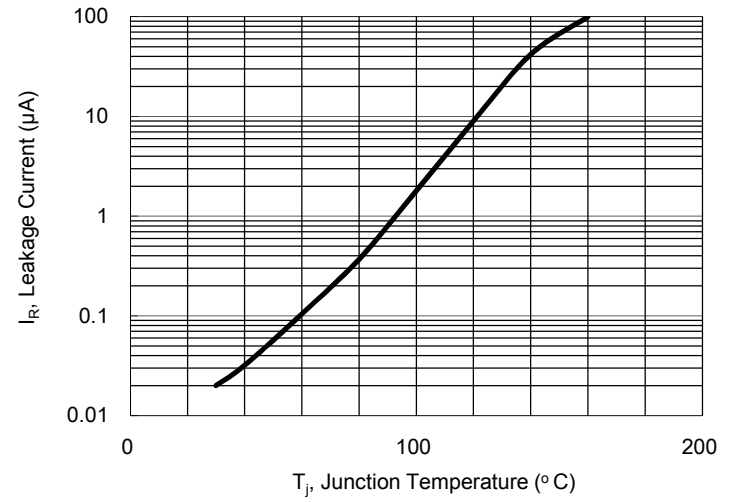


Fig. 2 Leakage Current VS. Junction temperature



Small Signal Product

ORDERING INFORMATION

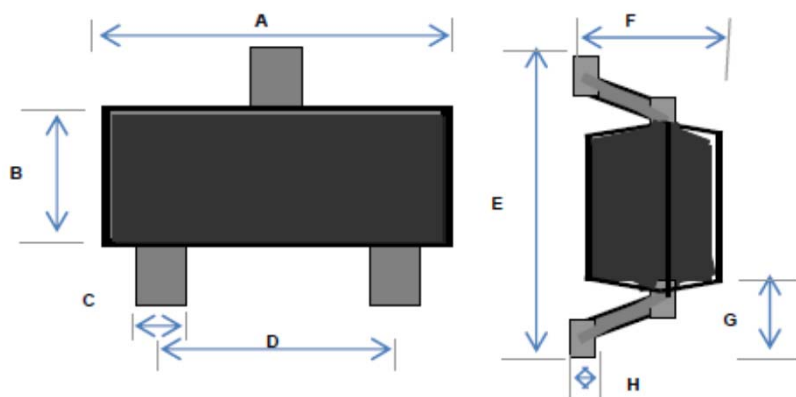
PART NO.	PART NO. SUFFIX (Note 2)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
BASxx (Note 1)	-xx	RF	G	SOT-23	3K / 7" Reel
		R5			10K / 13" Reel

Note 1: "xx" is Device Code from "19" thru "20".

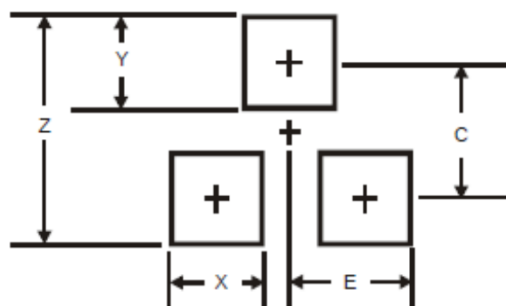
Note 2: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE

PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
BAS19 RF	BAS19		RF		Multiple manufacture source
BAS19 RFG	BAS19		RF	G	Multiple manufacture source Green compound
BAS19-B0 RFG	BAS19	-B0	RF	G	Defined manufacture source Green compound

PACKAGE OUTLINE DIMENSIONS


DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.10 REF		0.004 REF	

SUGGEST PAD LAYOUT


DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	2.8	0.110
X	0.7	0.028
Y	0.9	0.035
C	1.9	0.075
E	1.0	0.039

Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Taiwan Semiconductor:](#)

[BAS19](#) [BAS20](#) [BAS20 RF](#) [BAS19 RF](#) [BAS19 RFG](#) [BAS20 RFG](#)