

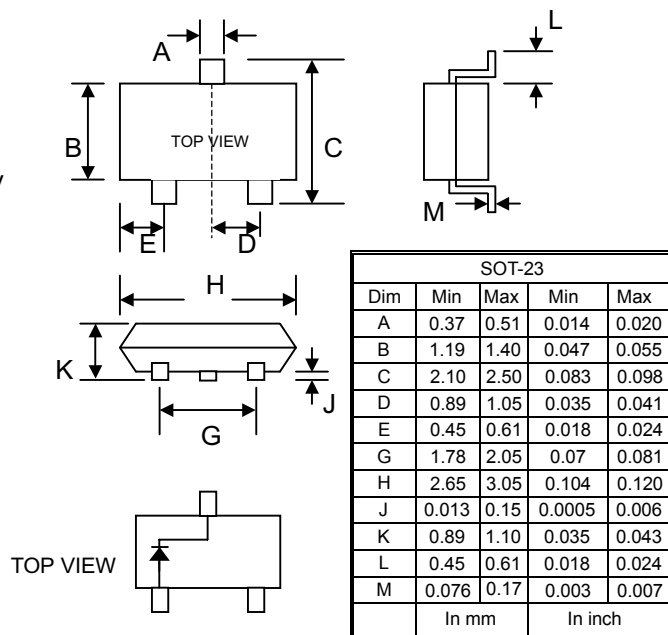
Data Sheet 2750, Rev. -

Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching
- Plastic Material – UL Recognition Flammability Classification 94V-O

Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.008 grams (approx.)
- Mounting Position: Any
- Marking: BAS19 A8
BAS20 A80
BAS21 A82



Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	BAS19	BAS20	BAS21	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	120	200	250	V
Peak Repetitive Reverse Voltage	V _{RRM}	100	150	200	V
Working Peak Reverse Voltage	V _{RWM}				
DC Blocking Voltage	V _R				
Forward Continuous Current (Note 1)	I _F	400			mA
Average Rectified Output Current (Note 1)	I _O	200			mA
Peak Forward Surge Current (Note 1) @ t = 1.0µs	I _{FSM}	2.5			A
Power Dissipation (Note 1)	P _d	350			mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	500			K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150			°C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Forward Voltage	V _F	—	1.0 1.25	V	@ I _F = 100mA @ I _F = 200mA
Reverse Leakage Current	I _R	—	100	nA	@ Rated DC Blocking Voltage
Junction Capacitance	C _j	—	5.0	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	50	nS	I _F = I _R = 30mA, I _{RR} = 0.1 x I _R , R _L = 100Ω

Note: 1. Device mounted on fiberglass substrate 40 x 40 x 1.5mm.

Data Sheet 2750, Rev. -

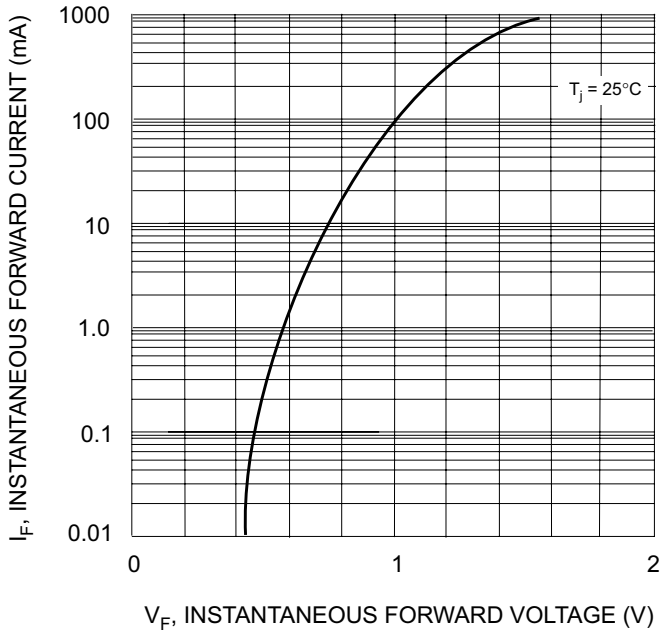


Fig. 1 Forward Characteristics

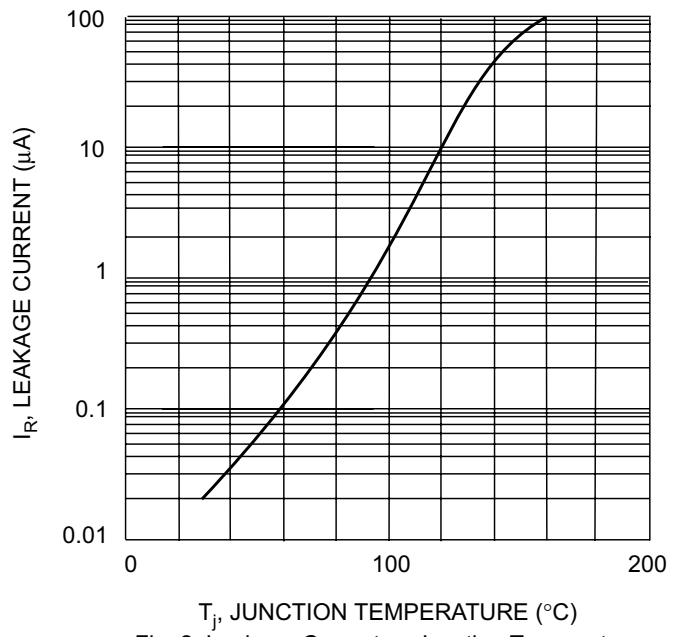


Fig. 2 Leakage Current vs Junction Temperature

TECHNICAL DATA

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.