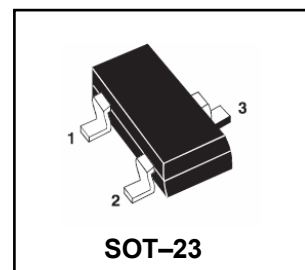


Features

- Ultra-Small Surface Mount Package
- Very Low Leakage Current
- Lead Free/RoHS Compliant (Note 2)
- Qualified to AEC-Q101 Standards for High Reliability
- We declare that the material of product compliance with RoHS requirements.

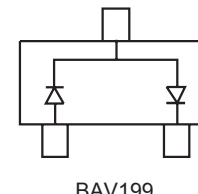
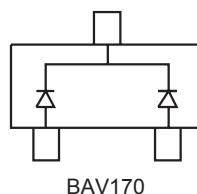
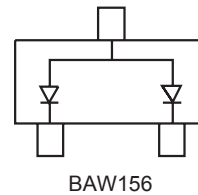
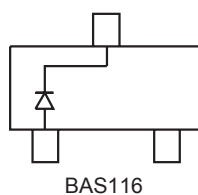
Mechanical Data

- Moisture Sensitivity Level 1
- Case: SOT-23
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020C
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Weight: 0.002 grams (approx.)



DEVICE MARKING ORDERING INFORMATION

Device	Marking	Shipping
BAS116	K50\JV	3000 Tape & Reel
BAW156	53	3000 Tape & Reel
BAV170	51	3000 Tape & Reel
BAV199	52	3000 Tape & Reel



Pb-Free package is available

RoHS product for packing code suffix "G"

Halogen free product for packing code suffix "H"

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	85	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	60	V
Forward Continuous Current (Note 1)	I _{FM}	215	mA
		125	
Repetitive Peak Forward Current	I _{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	4.0	A
		1.0	
		0.5	
Power Dissipation (Note 1)	P _d	150	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	833	°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150	°C

Notes: 1. Device mounted on FR-4 PC board with recommended pad layout.

2. No purposefully added lead.



Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 3)	V _{(BR)R}	85	—	—	V	I _R = 100μA
Forward Voltage	V _F	—	—	0.90 1.0 1.1 1.25	V	I _F = 1.0mA I _F = 10mA I _F = 50mA I _F = 150mA
Leakage Current (Note 3)	I _R	—	—	5.0 80	nA nA	V _R = 75V V _R = 75V, T _j = 150°C
Total Capacitance	C _T	—	2	—	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	—	3.0	μs	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

Notes: 3. Short duration test pulse used to minimize self-heating effect.

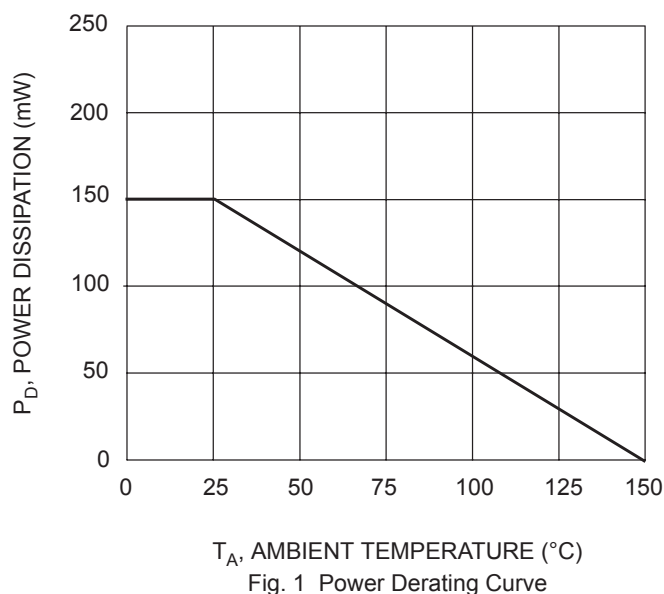


Fig. 1 Power Derating Curve

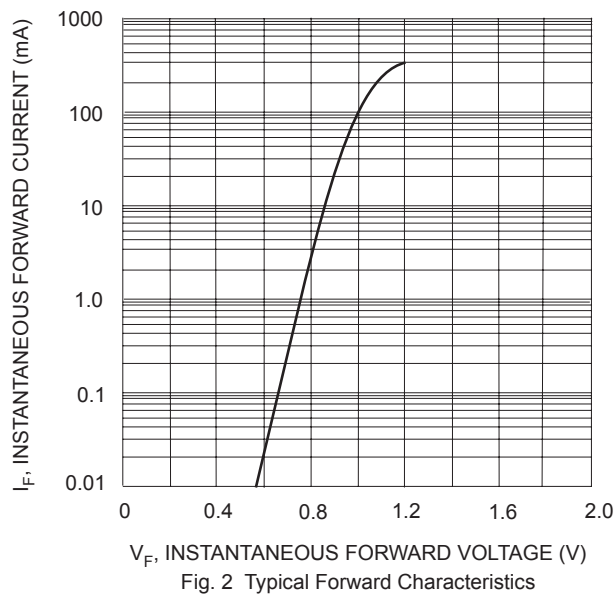


Fig. 2 Typical Forward Characteristics

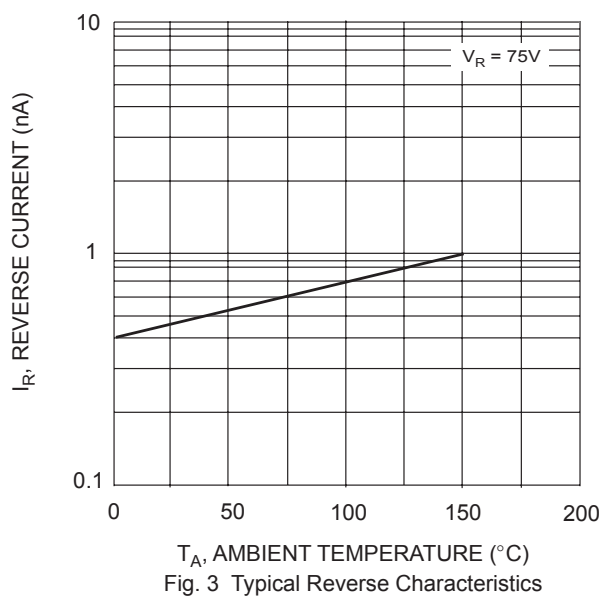


Fig. 3 Typical Reverse Characteristics

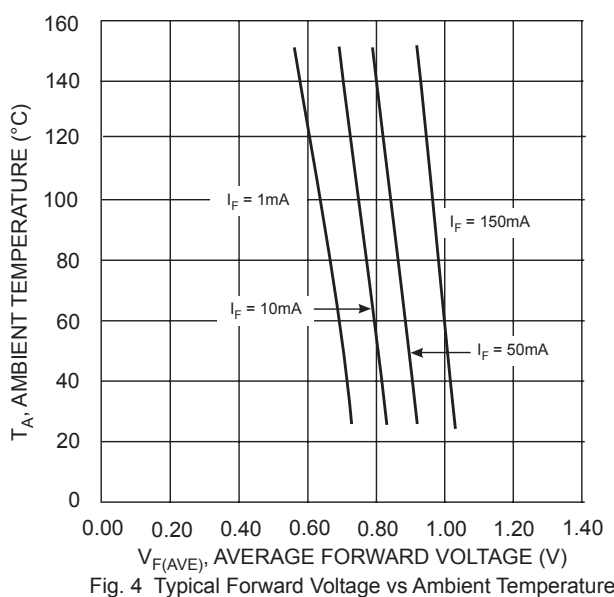
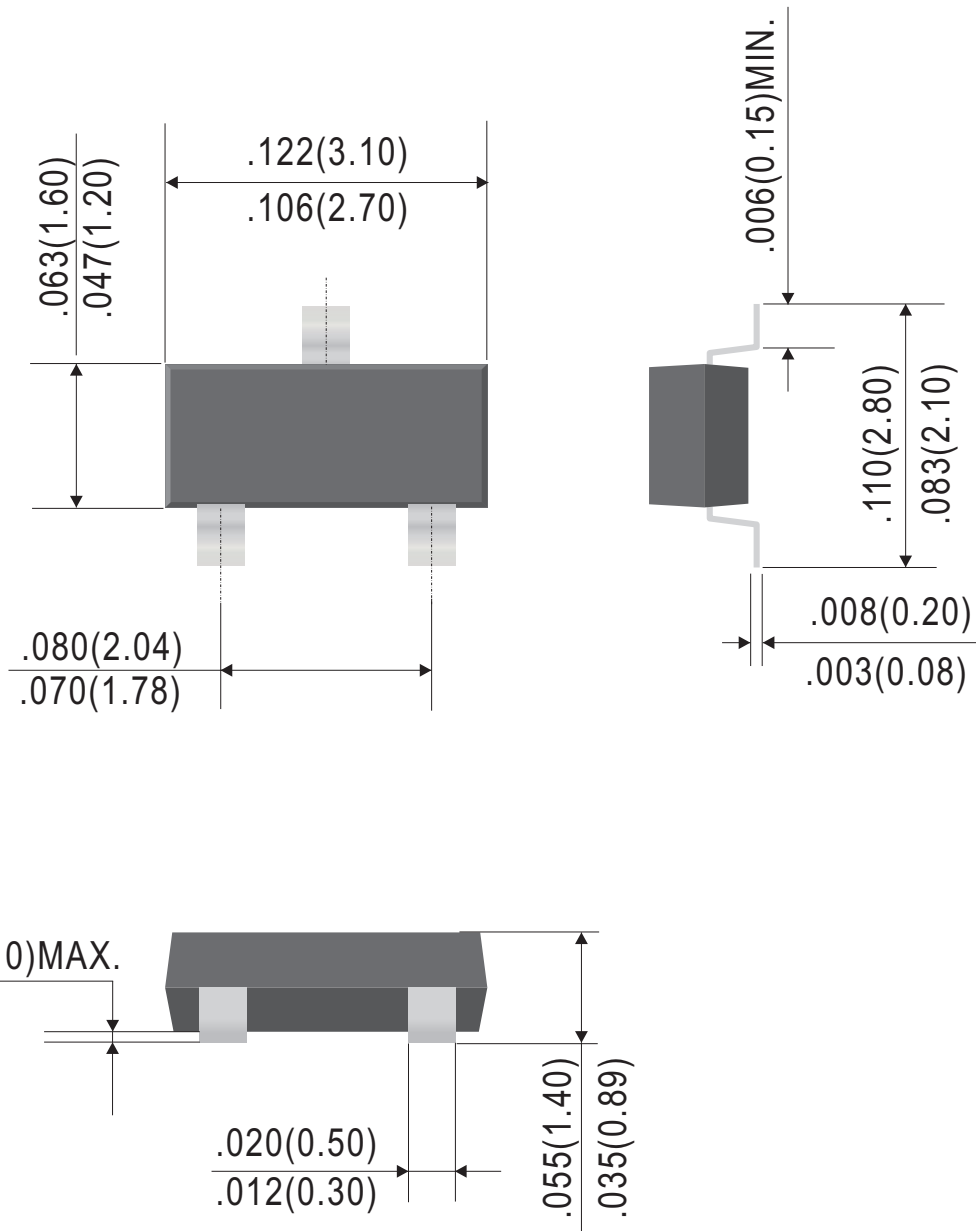


Fig. 4 Typical Forward Voltage vs Ambient Temperature

Outline Drawing

SOT-23



Dimensions in inches and (millimeters)

Rev.D

Ordering Information:

Device PN	Packing
Part Number-T ⁽¹⁾ G ⁽²⁾ -WS	Tape&Reel: 3 Kpcs/Ree

Note: (1) Packing code, Tape&Reel Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

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