

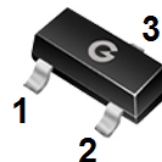
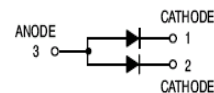
Features

- Fast switching speed
- High conductance
- Very low leakage current

HF

Mechanical Data

- Case: SOT-23
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOT-23

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAW156	SOT-23	3000 pcs / Tape & Reel	K53

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Non-repetitive Peak Reverse Voltage	V _{RM}	60	V
Peak Repetitive Peak Reverse Voltage	V _{RRM}	85	V
Working Peak Reverse Voltage	V _{RWM}	85	V
DC Blocking Voltage	V _R	85	V
Continuous Forward Current (Single diode loaded)	I _F	160	mA
Continuous Forward Current (Double diode loaded)	I _F	140	mA
Repetitive Peak Forward Current	I _{FRM}	500	mA
Peak Forward Surge Current, 1μs Single Half-sine-wave	I _{FSM}	4	A
Peak Forward Surge Current, 1ms Single Half-sine-wave	I _{FSM}	1	A
Peak Forward Surge Current, 1s Single Half-sine-wave	I _{FSM}	0.5	A

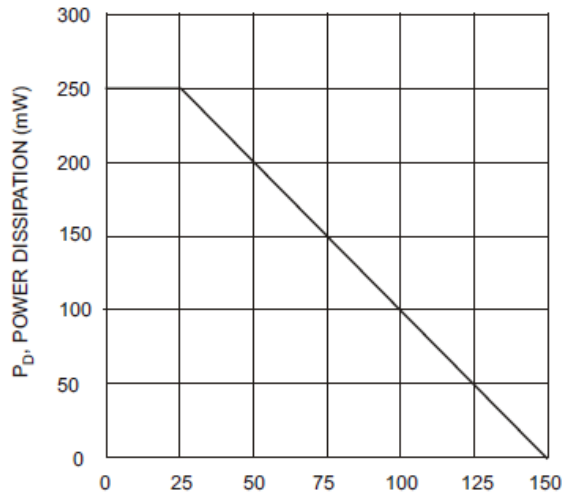
Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	250	mW
Thermal Resistance Junction-to-Air	R _{θJA}	500	°C/W
Operating Junction Temperature Range	T _J	-65 ~ +150	°C
Storage Temperature Range	T _{STG}	-65 ~ +150	°C

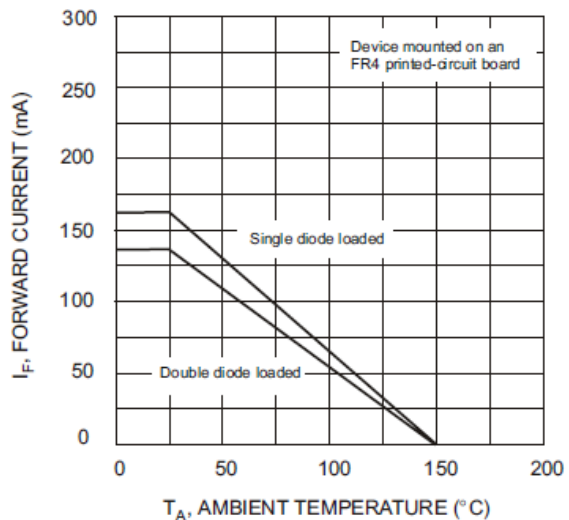
Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	85	-	-	V
Forward Voltage	V_F	$I_F = 1\text{mA}$	-	-	0.90	V
		$I_F = 10\text{mA}$	-	-	1.00	V
		$I_F = 50\text{mA}$	-	-	1.10	V
		$I_F = 150\text{mA}$	-	-	1.25	V
Maximum Peak Reverse Current	I_R	$V_R = 75\text{V}$	-	-	5	nA
		$V_R = 75\text{V}, T_J = 150^\circ\text{C}$	-	-	80	nA
Total Capacitance	C_J	$V_R = 0\text{V}, f = 1.0\text{MHz}$	-	3	-	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	-	4	μs

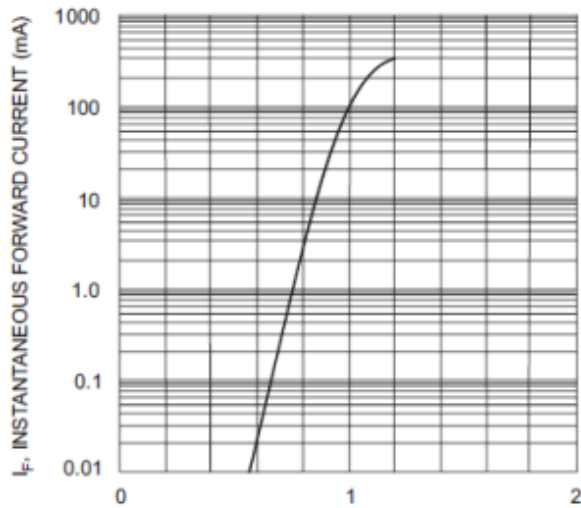
Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)



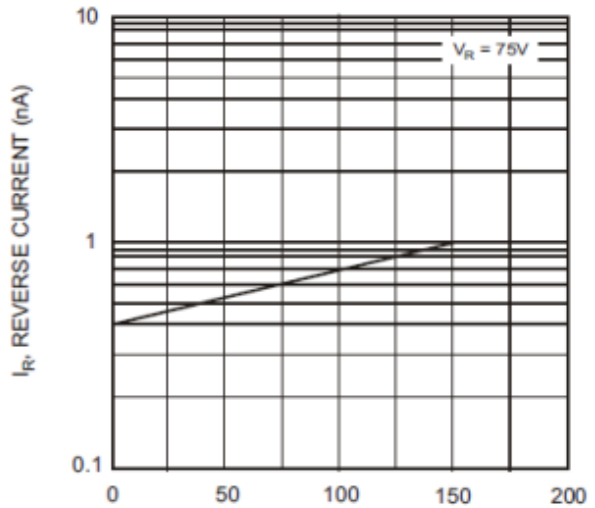
T_A , AMBIENT TEMPERATURE ($^\circ\text{C}$)
Fig. 1 Power Derating Curve



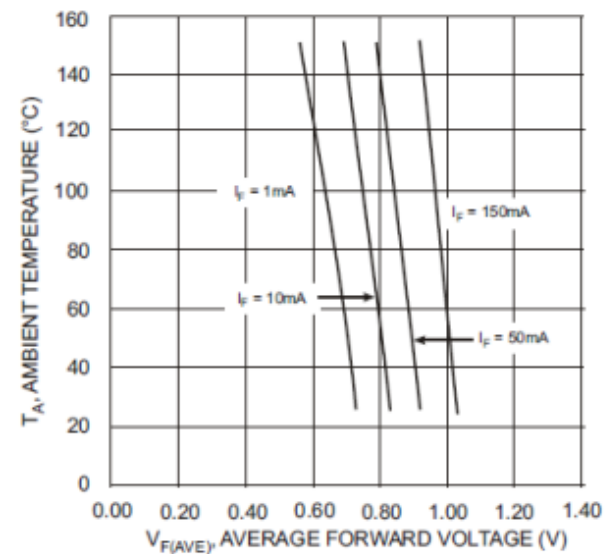
T_A , AMBIENT TEMPERATURE ($^\circ\text{C}$)
Fig. 2 Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 3 Typical Forward Characteristics

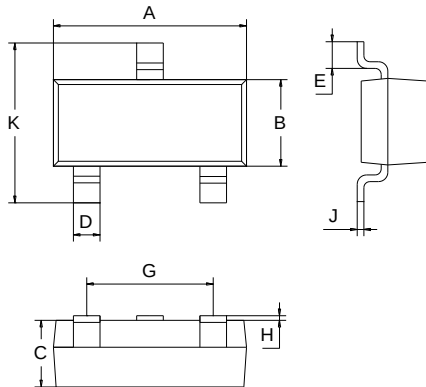


T_A , AMBIENT TEMPERATURE ($^\circ\text{C}$)
Fig. 4 Typical Reverse Characteristics



$V_{F(AVE)}$, AVERAGE FORWARD VOLTAGE (V)
Fig. 5 Typical Forward Voltage vs Ambient Temperature

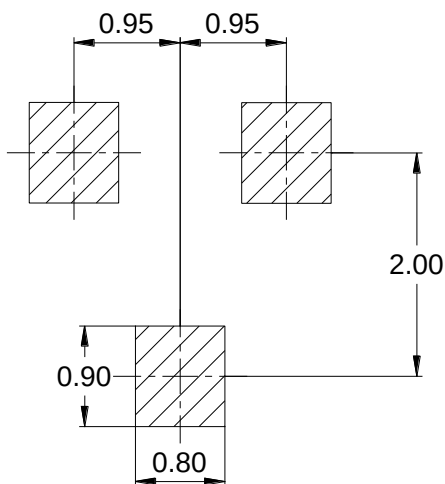
Package Outline Dimensions (Unit: mm)



SOT-23		
Dimension	Min.	Max.
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

Package Outline Dimensions (Unit: mm)

SOT-23



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