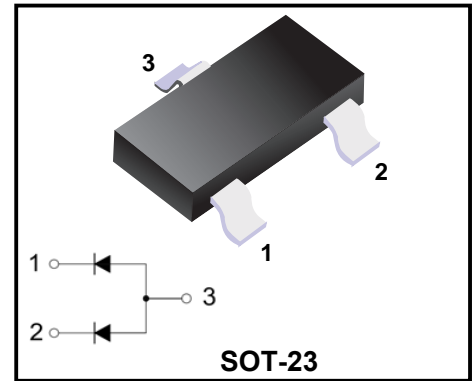


SWITCHING DIODES

FEATURES

- ◆Fast Switching Speed
- ◆For General Purpose Switching Applications
- ◆High Conductance



Marking Code	
BAW156	JZ

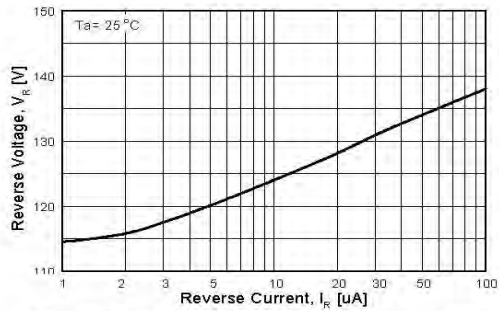
Absolute Maximum Ratings (Ta =25 °C)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Continuous Forward Current (Double Diode Loaded)	I_F	125	mA
Continuous Forward Current (Single Diode Loaded)	I_F	215	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	at t = 1 s	0.5
		at t = 1 ms	1
		at t = 1 μ s	4.5
Power Dissipation	P_{tot}	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

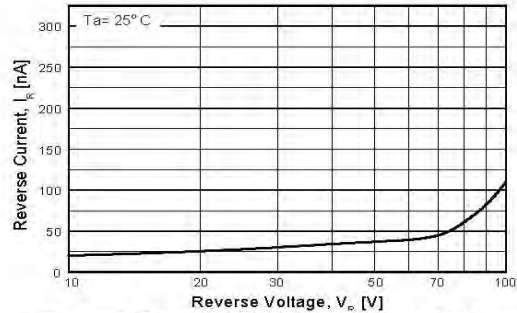
Characteristics at Ta =25 °C

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 50$ mA at $I_F = 150$ mA	V_F	0.715	V
		0.855	
		1	
		1.25	
Reverse Current at $V_R = 25$ V at $V_R = 75$ V at $V_R = 25$ V, $T_j = 150$ °C at $V_R = 75$ V, $T_j = 150$ °C	I_R	30	nA
		1	μ A
		30	μ A
		50	μ A
Diode Capacitance at $V_R = 0$, $f = 1$ MHz	C_d	1.5	pF
Reverse Recovery Time at $I_F = I_R = 10$ mA, $I_R = 1$ mA, $R_L = 100$ Ω	t_{rr}	4	ns

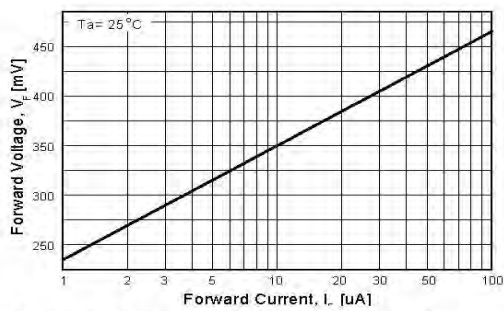
Ratings and Characteristic Curves



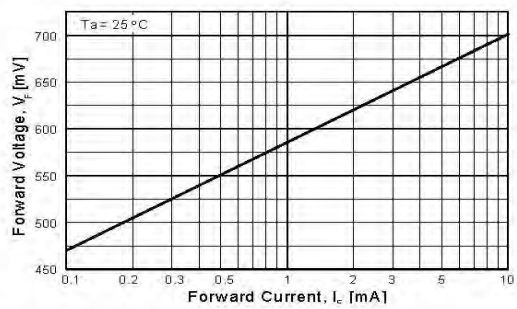
**Figure 1. Reverse Voltage vs Reverse Current
BV - 1.0 to 100uA**



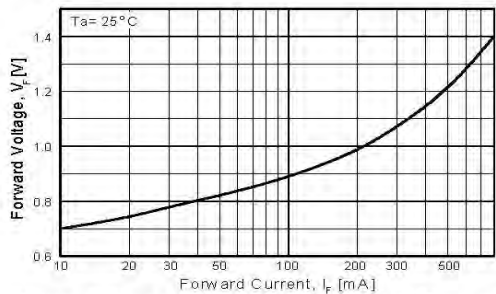
**Figure 2. Reverse Current vs Reverse Voltage
IR - 10 to 100 V**



**Figure 3. Forward Voltage vs Forward Current
VF - 1.0 to 100 uA**



**Figure 4. Forward Voltage vs Forward Current
VF - 0.1 to 10 mA**



**Figure 5. Forward Voltage vs Forward Current
VF - 10 - 800 mA**

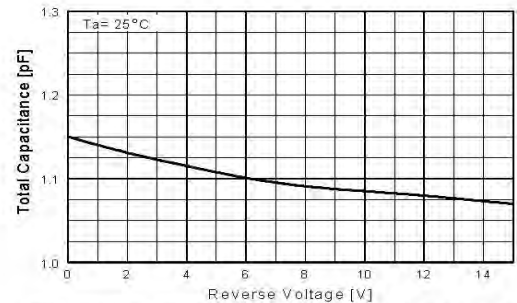
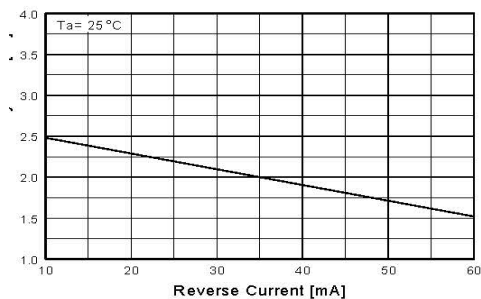
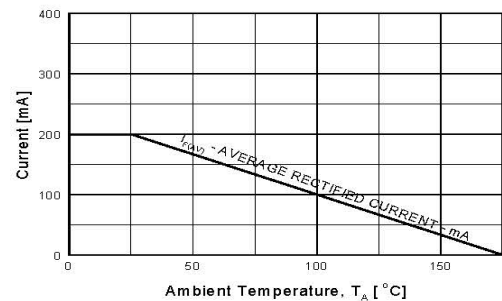


Figure 6. Total Capacitance vs Reverse Voltage



**Figure 7. Reverse Recovery Time
vs Reverse Current
TRR - IR 10 mA vs 60 mA**



**Figure 8. Average Rectified Current ($I_{F(AV)}$)
versus Ambient Temperature (T_A)**

Ordering information

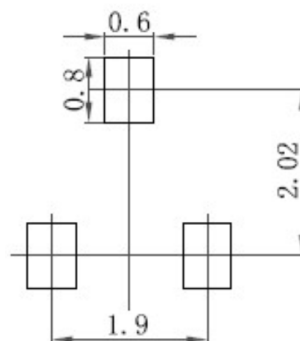
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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