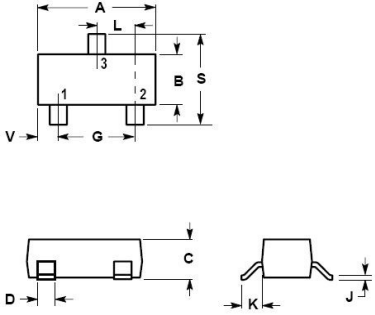


<p>SURFACE MOUNT FAST SWITCHING DIODE</p>	<p>REVERSE VOLTAGE – 85 Volts FORWARD CURRENT – 0.215 Ampere</p>																																				
<p>FEATURES</p> <ul style="list-style-type: none"> • Fast Switching Speed • Ideally Suited for Automatic Insertion • For general purpose switching applications <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: SOT-23 Plastic • Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl) • Moisture Sensitivity: Level 1 per J-STD-020D • Lead Free in RoHS 2002/95/EC Compliant 	<p style="text-align: center;">SOT-23</p> <div style="display: flex; align-items: center;">  <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="3">SOT-23</th> </tr> <tr> <th>Dim.</th> <th>Min.</th> <th>Max.</th> </tr> </thead> <tbody> <tr><td>A</td><td>2.80</td><td>3.04</td></tr> <tr><td>B</td><td>1.20</td><td>1.40</td></tr> <tr><td>C</td><td>0.89</td><td>1.11</td></tr> <tr><td>D</td><td>0.37</td><td>0.50</td></tr> <tr><td>G</td><td>1.78</td><td>2.04</td></tr> <tr><td>J</td><td>0.085</td><td>0.177</td></tr> <tr><td>K</td><td>0.35</td><td>0.69</td></tr> <tr><td>L</td><td>0.89</td><td>1.02</td></tr> <tr><td>S</td><td>2.10</td><td>2.64</td></tr> <tr><td>V</td><td>0.45</td><td>0.60</td></tr> </tbody> </table> </div> <p style="text-align: center; font-size: small;">Dimensions in millimeter</p>	SOT-23			Dim.	Min.	Max.	A	2.80	3.04	B	1.20	1.40	C	0.89	1.11	D	0.37	0.50	G	1.78	2.04	J	0.085	0.177	K	0.35	0.69	L	0.89	1.02	S	2.10	2.64	V	0.45	0.60
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Maximum Ratings & Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAV199	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	85	V
Forward Continuous Current	Single diode Double diode	215 125	mA
Non-Repetitive Peak Forward Surge Current @t=1sec	I _{FSM}	500	mA
Power Dissipation (Note 1)	P _D	150	mW
Thermal Resistance, Junction to Ambient (Note 1)	R _{θJA}	833	°C/W
Operating Junction Temperature Range	T _J	150	°C
Storage Temperature Range	T _{STG}	-55~+150	°C

Note: 1) Device mounted on FR-4 PC board with recommended pad layout,

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	I _R = 100uA	V _{BR}	85	--	--	V
Maximum Forward Voltage	I _F = 1mA I _F = 10mA I _F = 50mA I _F = 150mA	V _F	--	--	0.9 1.0 1.1 1.25	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	V _R = 75V	I _R	--	--	5	nA
Typical Diode Capacitance	V _R = 1V, f = 1MHz	C _D	--	2	--	pF
Reverse Recovery time	I _{rr} = 1mA, I _F = I _R = 10mA, R _L = 100Ω	t _{rr}	--	--	3	us

**RATING AND CHARACTERISTIC CURVES
BAV199**



Fig.1 Power Derating Curve

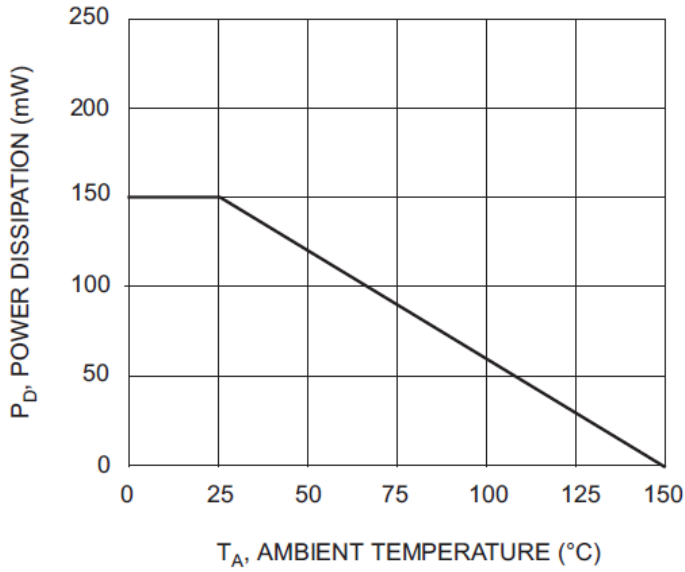


Fig.2 Typical Forward Characteristics

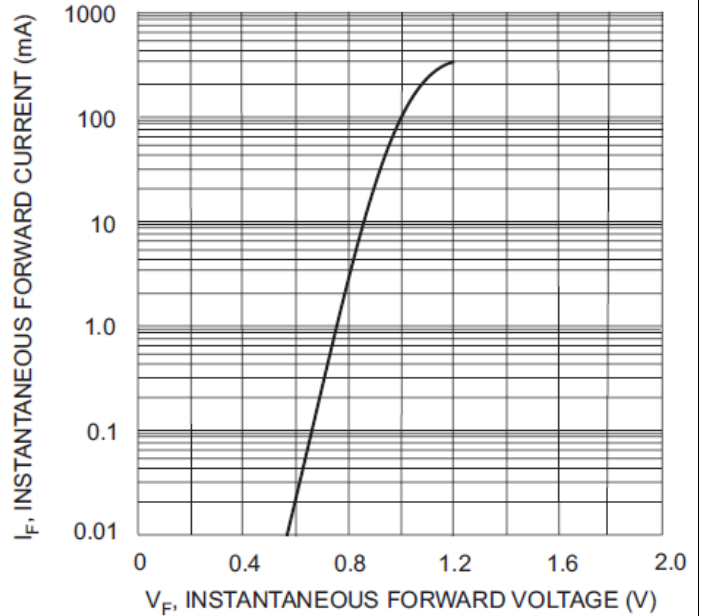


Fig.3 Typical Reverse Characteristics

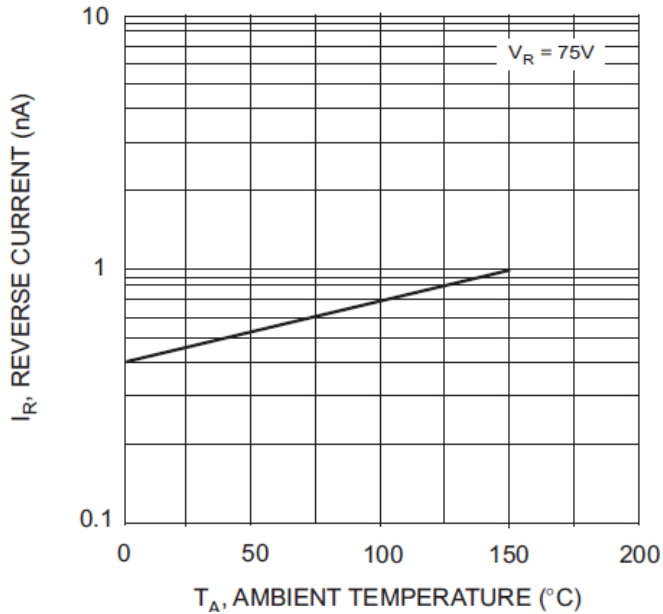
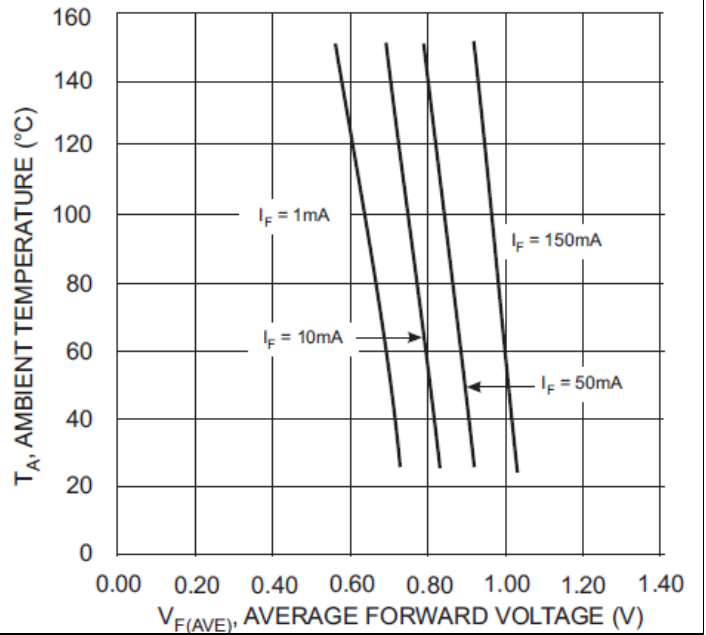


Fig.4 Forward Voltage vs. Ambient Temperature



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
BAV199	52	

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