



BAV99BRW

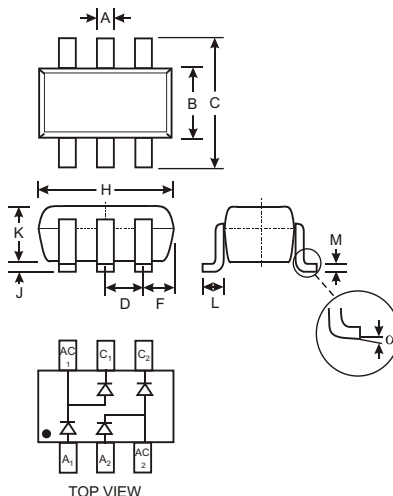
QUAD SURFACE MOUNT SWITCHING DIODE ARRAY

Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- Two "BAV99" Circuits In One Package
- Easily Connected As Full-Wave Bridge
- Lead Free/RoHS Compliant (Note 3)

Mechanical Data

- Case: SOT-363
- 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).
- Polarity: See Diagram
- Marking: KGJ (See Page 2)
- Weight: 0.006 grams (approximate)



SOT-363		
Dim	Min	Max
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
F	0.30	0.40
H	1.80	2.20
J		0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
	0	8°
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current (Note 1)	I_{FM}	300	mA
Average Rectified Output Current (Note 1)	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{ s}$ @ $t = 1.0\text{ s}$	I_{FSM}	2.0 1.0	A
Power Dissipation (Note 1)	P_d	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R_{JA}	625	C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	C

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

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	75		V	$I_R = 2.5\text{ A}$
Forward Voltage	V_F		0.715 0.855 1.0 1.25	V	$I_F = 1.0\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 50\text{ mA}$ $I_F = 150\text{ mA}$
Reverse Current (Note 2)	I_R		2.5 50 30 25	A A A nA	$V_R = 75\text{ V}$ $V_R = 75\text{ V}, T_J = 150^\circ\text{C}$ $V_R = 25\text{ V}, T_J = 150^\circ\text{C}$ $V_R = 20\text{ V}$
Total Capacitance	C_T		2.0	pF	$V_R = 0, f = 1.0\text{ MHz}$
Reverse Recovery Time	t_{rr}		4.0	ns	$I_F = I_R = 10\text{ mA}$, $I_{rr} = 0.1 \times I_R, R_L = 100$

- Notes: 1. Device mounted on FR-4 PC board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
 2. Short duration test pulse used to minimize self-heating effect.
 3. No purposefully added lead.

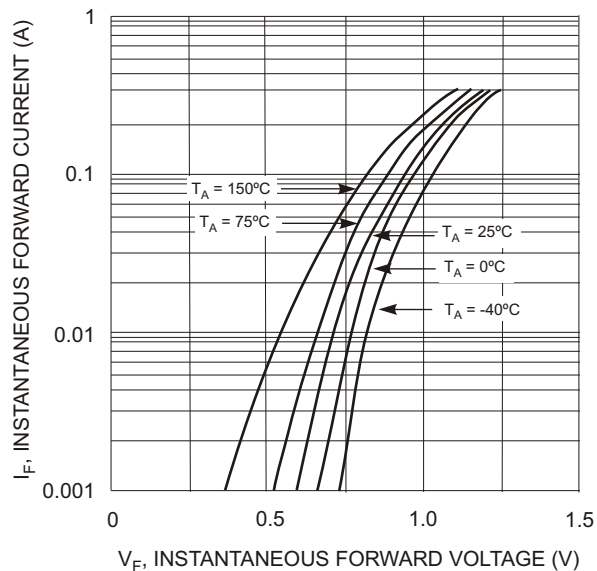


Fig. 1 Forward Characteristics

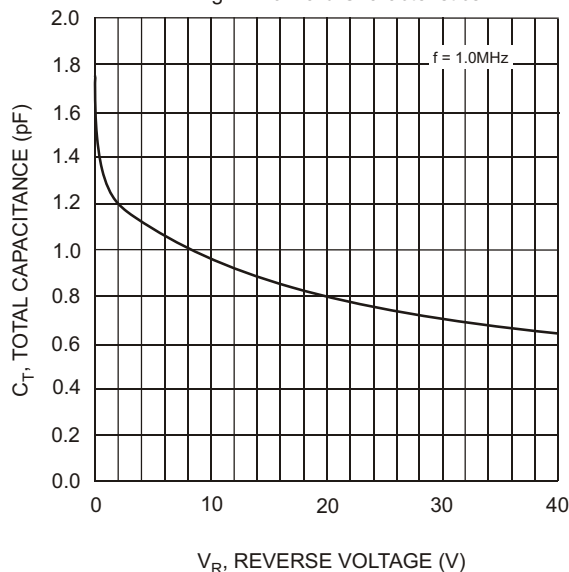


Fig. 3 Typical Capacitance vs. Reverse Voltage

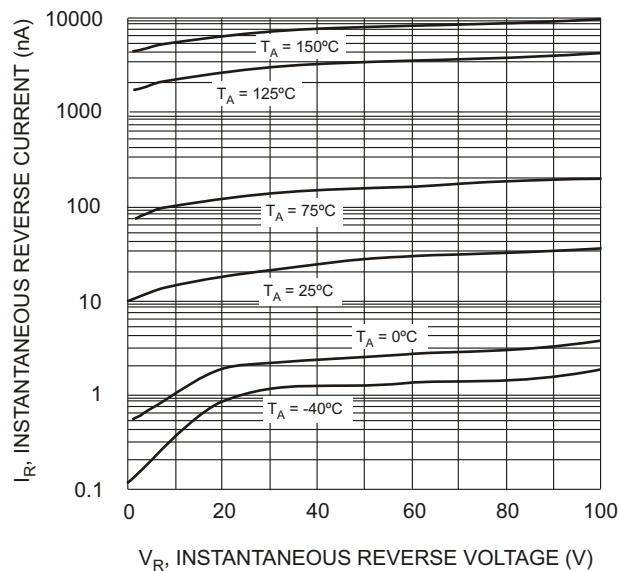


Fig. 2 Typical Reverse Characteristics

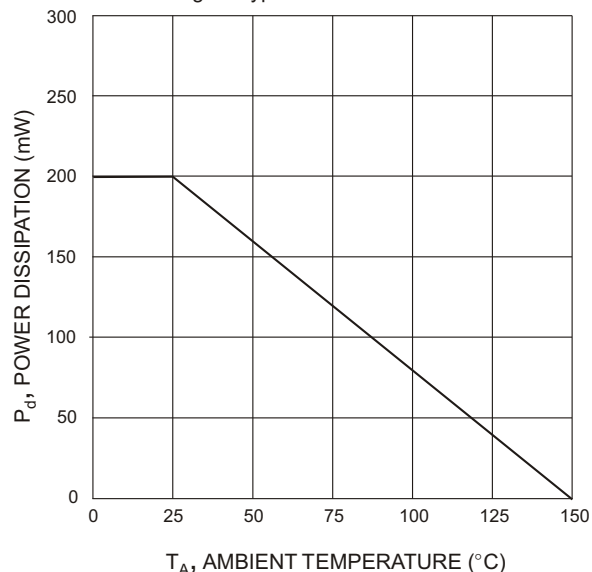


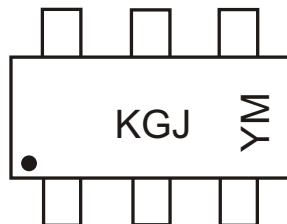
Fig. 4 Power Derating Curve

Ordering Information (Note 4 & 5)

Device	Packaging	Shipping
BAV99BRW-7-F	SOT-363	3000/Tape & Reel

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



KGJ = Product Type Marking Code
YM = Date Code Marking
Y = Year ex: N = 2002
M = Month ex: 9 = September

Date Code Key

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Code	M	N	P	R	S	T	U	V	W	X	Y	Z
Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

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