



BAV199DW

QUAD SURFACE MOUNT LOW LEAKAGE DIODE

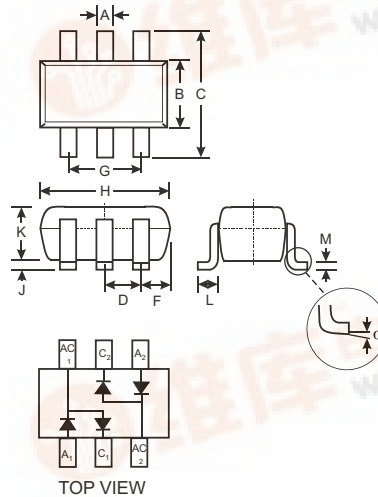
NEW PRODUCT

Features

- Surface Mount Package Ideally Suited for Automatic Insertion
- Very Low Leakage Current

Mechanical Data

- Case: SOT-363, Molded Plastic
- Case material - UL Flammability Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Terminals: Finish - Matte Tin (Note 1) Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: K52 & Date Code (See Page 2)
- Weight: 0.008 grams (approx.)



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
G	1.80	2.20
H	1.80	2.20
J	—	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAV199DW	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	85	V
RMS Reverse Voltage	V _{R(RMS)}	60	V
Forward Continuous Current (Note 2)	I _{FM}	160 140	mA
Repetitive Peak Forward Current (Note 2)	I _{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	4.0 1.0 0.5	A
	@ t = 1.0μs @ t = 1.0ms @ t = 1.0s		
Power Dissipation (Note 2)	P _d	200	mW
Thermal Resistance Junction to Ambient Air (Note 2)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

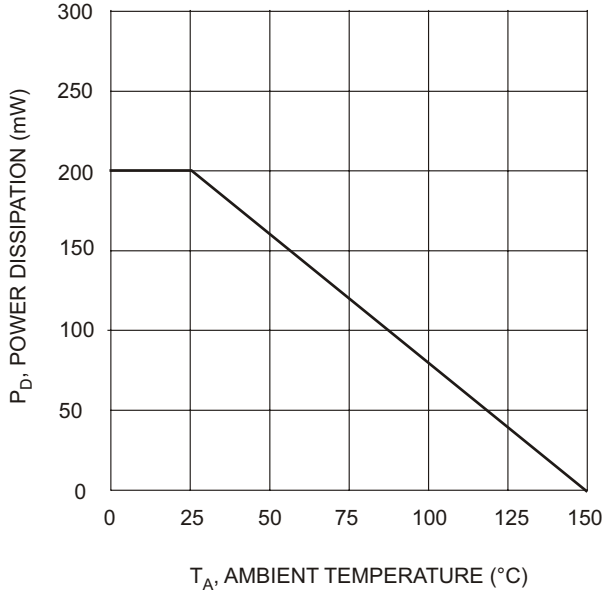
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 3)	V _{(BR)R}	85	—	—	V	I _R = 100μA
Forward Voltage (Note 3)	V _F	—	—	0.90 1.0 1.1 1.25	V	I _F = 1.0mA I _F = 10mA I _F = 50mA I _F = 150mA
Leakage Current (Note 3)	I _R	—	—	5.0 80	nA nA	V _R = 75V V _R = 75V, T _j = 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: 1. If lead-bearing terminal plating is required, please contact your Diodes Inc. sales representative for availability and minimum order details.

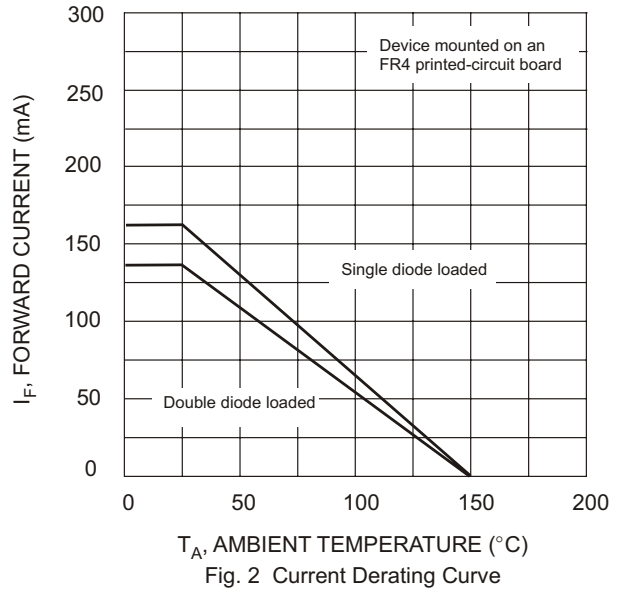
2. Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.

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

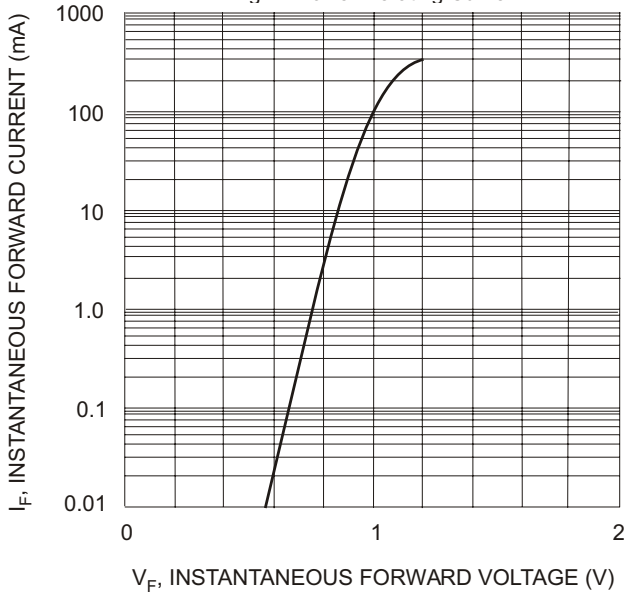




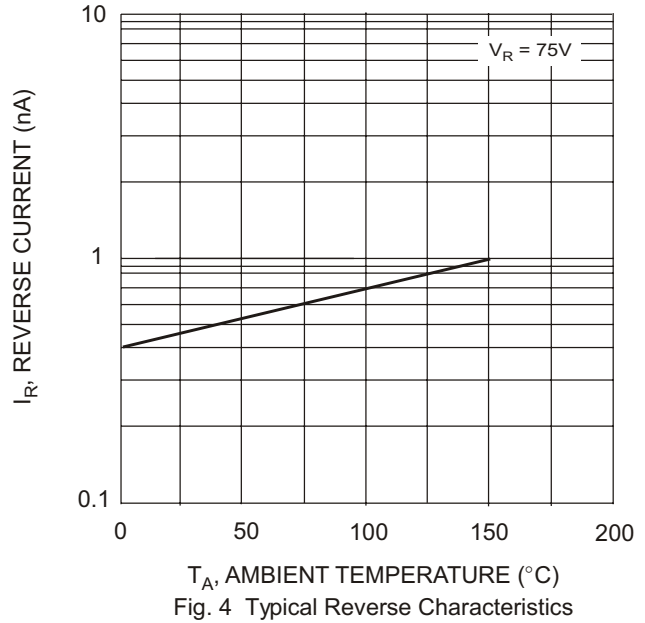
T_A, AMBIENT TEMPERATURE (°C)
Fig. 1 Power Derating Curve



T_A, AMBIENT TEMPERATURE (°C)
Fig. 2 Current Derating Curve



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



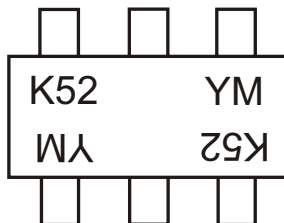
T_A, AMBIENT TEMPERATURE (°C)
Fig. 4 Typical Reverse Characteristics

Ordering Information (Note 4)

Device	Packaging	Shipping
BAV199DW-7	SOT-363	3000/Tape & Reel

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

Marking Information



K52 = Product Type Marking Code
 YM = Date Code Marking
 Y = Year ex: P = 2003
 M = Month ex: 9 = September

Date Code Key

Year	2003	2004	2005	2006	2007	2008	2009
Code	P	R	S	T	U	V	W

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