



# BAW567DW

### QUAD SURFACE MOUNT SWITCHING DIODE ARRAY

#### **Features**

Fast Switching Speed

Ultra-Small Surface Mount Package

For General Purpose Switching Applications

High Conductance

One BAV70 Circuit and One BAW56 Circuit In One Package

Lead Free/RoHS Compliant (Note 3)

Qualified to AEC-Q101 Standards for High Reliability

#### **Mechanical Data**

Case: SOT-363

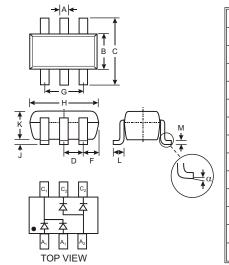
Case Material: Molded Plastic. UL Flammability

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: KAC (See Page 3)
Weight: 0.006 grams (approximate)



SOT-363					
Min	Max				
0.10	0.30				
1.15	1.35				
2.00	2.20				
0.65 N	ominal				
0.30	0.40				
1.80	2.20				
	0.10				
0.90	1.00				
0.25	0.40				
0.10	0.25				
0	8°				
All Dimensions in mm					
	Min 0.10 1.15 2.00 0.65 N 0.30 1.80 0.90 0.25 0.10 0				

## Maximum Ratings @ TA = 25 C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	75	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Forward Continuous Current (Note 1)	I <sub>FM</sub>	300	mA
Average Rectified Output Current (Note 1)	Io	150	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0 s @ t = 1.0s	I <sub>FSM</sub>	2.0 1.0	А
Power Dissipation (Note 1)	Pd	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R <sub>JA</sub>	625	C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150	С

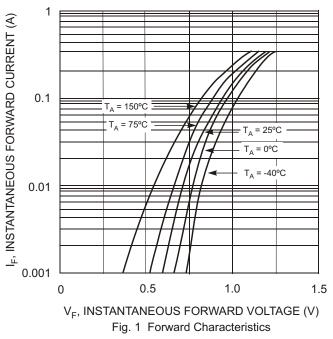
## Electrical Characteristics @ TA = 25 C unless otherwise specified

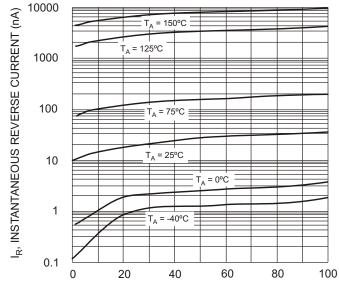
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)R</sub>	75		V	I <sub>R</sub> = 2.5 A
Forward Voltage	V <sub>F</sub>		0.715 0.855 1.0 1.25	V	I <sub>F</sub> = 1.0mA I <sub>F</sub> = 10mA I <sub>F</sub> = 50mA I <sub>F</sub> = 150mA
Reverse Current (Note 2)	I <sub>R</sub>		2.5 50 30 25	A A A nA	$V_R = 75V$ $V_R = 75V$ , $T_j = 150$ C $V_R = 25V$ , $T_j = 150$ C $V_R = 20V$
Total Capacitance	Ст		2.0	pF	V <sub>R</sub> = 0, f = 1.0MHz

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.

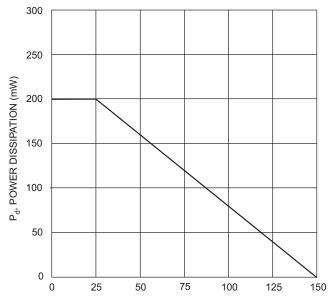






2.0 1.8 1.6 C<sub>T</sub>, TOTAL CAPACITANCE (pF) 1.4 1.2 1.0 8.0 0.6 0.4 0.2 0.0 10 30 0 20 40

 $V_R$ , INSTANTANEOUS REVERSE VOLTAGE (V) Fig. 2 Typical Reverse Characteristics



 $\label{eq:VR} {\rm V_{R},\,REVERSE\,VOLTAGE\,(V)}$  Fig. 3 Typical Capacitance vs. Reverse Voltage

T<sub>A</sub>, AMBIENT TEMPERATURE (°C) Fig. 4 Power Derating Curve

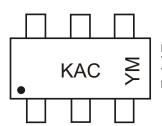


## Ordering Information (Note 4)

Device	Packaging	Shipping
BAW567DW-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**



KAC = 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	М	N	Р	R	S	Т	U	V	W	X	Υ	Z
Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

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