

QUAD SURFACE MOUNT SWITCHING DIODE ARRAY

Features

- Fast Switching Speed
- Small Surface Mount Package
- For General Purpose Switching Applications
- One BAV70 Circuit and One BAW56 Circuit In One Package
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen- and Antimony-Free. "Green" Device (Note 3)
- For automotive applications requiring specific change control (i.e.: parts qualified to AEC-Q100/101/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please refer to the related automotive grade (Qsuffix) part. A listing can be found at https://www.diodes.com/products/automotive/automotive-products/.
- This part is qualified to JEDEC standards (as references in AEC-Q) for High-Reliability.

https://www.diodes.com/quality/product-definitions/

Mechanical Data

Case: SOT-363

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Matte Tin Finish Annealed over Alloy 42 Lead-Frame, Solderable per MIL-STD-202, Method 208 3
- Polarity: See Diagram
- Weight: 0.006 grams (Approximate)

SOT-363



TOP VIEW



TOP VIEW Internal Schematic

Ordering Information (Note 4)

Part Number	Qualification	Case	Packaging
BAW567DW-7-F	Commercial	SOT-363	3000/Tape & Reel

Notes:

- 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant.
- 2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 4. For packaging details, go to our website at https://www.diodes.com/design/support/packaging/diodes-packaging/.

Marking Information



KAC = Product Type Marking Code YM = Date Code Marking Y = Year ex: H = 2020 M = Month ex: 9 = September

Date Code Key

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Code	С	D	Е	F	G	Н	I	J	K	L	М	N
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code		_	_	4	-	_	7	0	0	0	N	7

BAW567DW 1 of 5
Document number: DS30147 Rev. 12 - 2



Maximum Ratings @ T_A = 25°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 5)	I _{FM}	300	mA
Average Rectified Output Current	(Note 5)	I _O	150	mA
Non-Repetitive Peak Forward Surge Current @ t (Note 6) @ t		I _{FSM}	2.0 1.0	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit	
Power Dissipation	(Note 5)	P_{D}	200	mW
Thermal Resistance Junction to Ambient Air	(Note 5)	$R_{ hetaJA}$	625	°C/W
Operating and Storage Temperature Range		T_J,T_STG	-55 to +150	°C

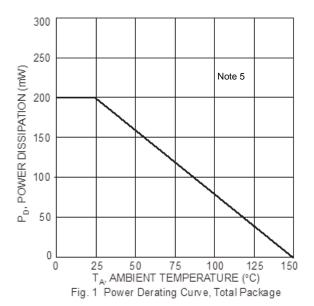
Electrical Characteristics @ T_A = 25°C unless otherwise specified

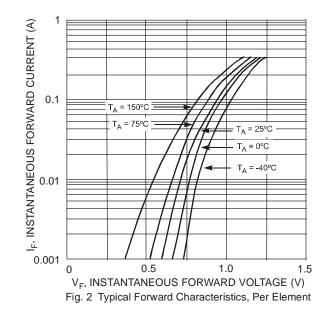
Characteristic		Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	(Note 7)	$V_{(BR)R}$	75	_	٧	$I_R = 2.5 \mu A$
Forward Voltage		V _F	_	0.715 0.855 1.0 1.25	V	I _F = 1.0mA I _F = 10mA I _F = 50mA I _F = 150mA
Reverse Current	(Note 7)	I _R	_	2.5 50 30 25	μA	$V_R = 75V$ $V_R = 75V$, $T_J = 150^{\circ}C$ $V_R = 25V$, $T_J = 150^{\circ}C$ $V_R = 20V$
Total Capacitance		C _T	_	2.0	pF	$V_R = 0, f = 1.0MHz$
Reverse Recovery Time		t _{rr}	_	4.0		$I_F = I_R = 10 \text{mA},$ $I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$

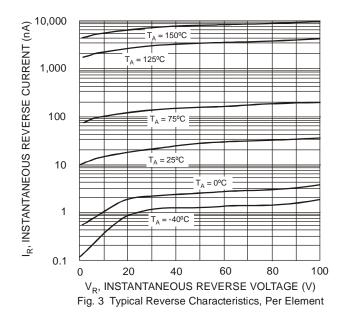
Notes:

- 5. Device mounted on FR-4 PC board with recommended pad layout, which can be found on our website at http://www.diodes.com/package-outlines.html.
- 6. Double Diode Loaded in parallel.
- 7. Short duration pulse test used to minimize self-heating effect.









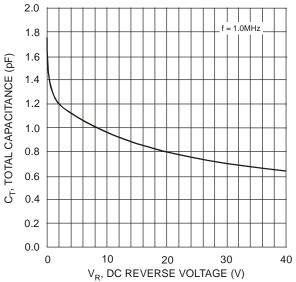
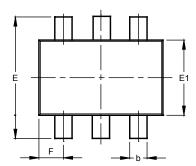


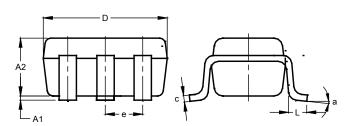
Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element



Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

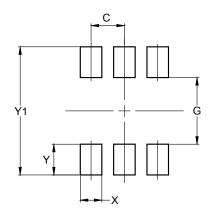




SOT363							
Dim Min Max Typ							
A1	0.00	0.10	0.05				
A2	0.90	1.00	0.95				
b	0.10	0.30	0.25				
C	0.10	0.22	0.11				
D	1.80	2.20	2.15				
Ε	2.00	2.20	2.10				
E1	1.15	1.35	1.30				
е	C	.650 E	SC				
F	0.40	0.45	0.425				
Г	0.25	0.40	0.30				
а	0°	8°					
All Dimensions in mm							

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.



Dimensions	Value (in mm)			
С	0.650			
G	1.300			
Х	0.420			
Y	0.600			
Y1	2.500			



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5 of 5 BAW567DW October 2020 © Diodes Incorporated Document number: DS30147 Rev. 12 - 2

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