





HIGH VOLTAGE DUAL SWITCHING DIODE

Features

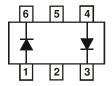
- Fast Switching Speed: max. 50ns
- High Reverse Breakdown Voltage: 300V
- Two Electrically Isolated Elements in a Single Compact Package
- Low Leakage Current: 150nA at Room Temperature
- Lead, Halogen and Antimony Free, RoHS Compliant (Note 3)
- "Green" Device (Note 4)

Mechanical Data

- Case: SOT-363
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Matte Tin annealed over Alloy 42 leadframe.
 Solderable per MIL-STD-202, Method 208
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 0.006 grams (approximate)



Top View



Device Schematic

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic		Symbol	Value	Unit
Panatitiva Paak Payaraa Valtaga	Single Diode	V	300	V
Repetitive Peak Reverse Voltage	Series Connection	V_{RRM}	600	V
Working Peak Reverse Voltage	Single Diode	V_{RWM}	300	V
DC Blocking Voltage	Series Connection	V_{R}	600	V
RMS Reverse Voltage		V _{R(RMS)}	212	V
Forward Current (Note 2)	Single Diode Loaded	le	250	mA
Totward Garrent (140te 2)	Double Diode Loaded	'F	140	IIIA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4.5	Α	
Repetitive Peak Forward Current @ t = 8.3m	I _{FRM}	625	mA	

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 2)	P_{D}	300	mW
Thermal Resistance Junction to Ambient Air (Note 2)	$R_{ hetaJA}$	417	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

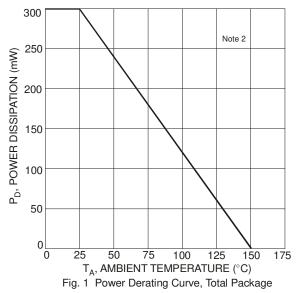
Electrical Characteristics @T_A = 25°C unless otherwise specified

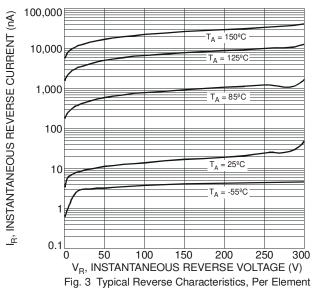
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	300	_	V	$I_R = 100 \mu A$
Forward Voltage	V _F	_	1.1	V	I _F = 100mA
		_	50	nA	$V_R = 5V$
Reverse Current (Note 1)	I _R	_	150	nA	$V_{R} = 250V$
		_	75	μΑ	V _R = 250V, T _J = 150°C
Total Capacitance	C _T		2.0	pF	$V_R = 0, f = 1.0MHz$
Reverse Recovery Time			50	ns	$I_F = I_R = 30mA$,
neverse necovery fillie	t _{rr}				$I_{rr} = 0.1 \times I_{R}, R_{L} = 100\Omega$

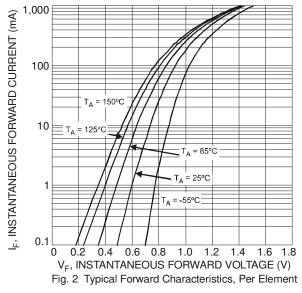
Notes:

- 1. Short duration pulse test used to minimize self-heating effect.
- 2. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
- 3. No purposefully added lead. Halogen and Antimony Free.
- 4. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.









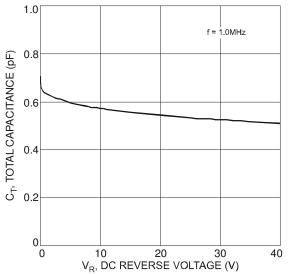


Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

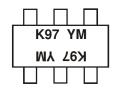
Ordering Information (Note 5)

Part Number	Case	Packaging
BAW101S-7	SOT-363	3000/Tape & Reel

Notes:

5. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



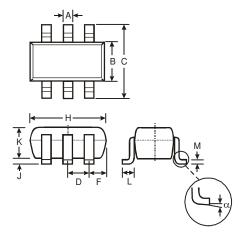
K97 = Product Type Marking Code YM = Date Code Marking Y = Year (ex: X = 2010) M = Month (ex: 9 = September)

Date Code Key

Year	201	0	2011		2012	20	13	2014		2015		2016
Code	X		Υ		Z	,	4	В		С		D
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	2	1	5	6	7	0	۵		N	ח

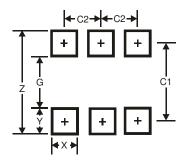


Package Outline Dimensions



SOT-363					
Dim	Min	Max			
Α	0.10	0.30			
В	1.15	1.35			
С	2.00	2.20			
D	0.65 Typ				
F	0.40	0.45			
Н	1.80	2.20			
J	0	0.10			
K	0.90	1.00			
L	0.25	0.40			
М	0.10	0.22			
α	0°	8°			
All Di	All Dimensions in mm				

Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.5
G	1.3
Х	0.42
Υ	0.6
C1	1.9
C2	0.65



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