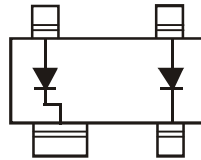


Features

- Fast Switching Speed
- High Reverse Breakdown Voltage
- Two Electrically Isolated Elements in a Single Compact Package
- Low Leakage Current
- **Lead, Halogen and Antimony Free, RoHS Compliant (Note 1)**
- **"Green" Device (Note 2)**

Mechanical Data

- Case: SOT143
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Polarity: See Diagram Below
- Weight: 0.008 grams (approximate)



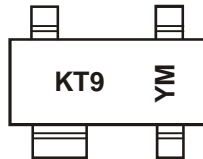
Device Schematic

Ordering Information (Note 3)

Part Number	Case	Packaging
BAW101-7	SOT143	3000/Tape & Reel

- Notes:
1. No purposefully added lead. Halogen and Antimony free.
 2. Diodes Inc.'s "Green" Policy can be found on our website at <http://www.diodes.com>
 3. For packaging details, go to our website at <http://www.diodes.com>.

Marking Information



KT9 = Product Type Marking Code
 YM = Date Code Marking
 Y = Year (ex: Y = 2011)
 M = Month (ex: 9 = September)

Date Code Key

Year	2011	2012	2013	2014	2015	2016	2017
Code	Y	Z	A	B	C	D	E

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	Single Diode	300	V
	Series Connection	600	
Working Peak Reverse Voltage DC Blocking Voltage	Single Diode	300	V
	Series Connection	600	
RMS Reverse Voltage	V _{R(RMS)}	212	V
Forward Current (Note 4)	Single Diode Loaded	250	mA
	Double Diode Loaded	140	
Non-Repetitive Peak Forward Surge Current Square Wave @ t = 1.0µs	I _{FSM}	4.5	A
Repetitive Peak Forward Current (Note 4)	I _{FRM}	625	mA

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 4)	P _D	400	mW
Thermal Resistance Junction to Ambient Air (Note 4)	R _{θJA}	312	°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	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 5)	V _{(BR)R}	300	—	V	I _R = 100µA
Forward Voltage	V _F	—	1.1	V	I _F = 100mA
Reverse Current (Note 5)	I _R	—	150	nA	V _R = 250V V _R = 250V, T _J = 150°C
		—	75	µA	
Total Capacitance	C _T	—	2.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	50	ns	I _F = I _R = 30mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

Notes: 4. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com>.
5. Short duration pulse test used to minimize self-heating effect.

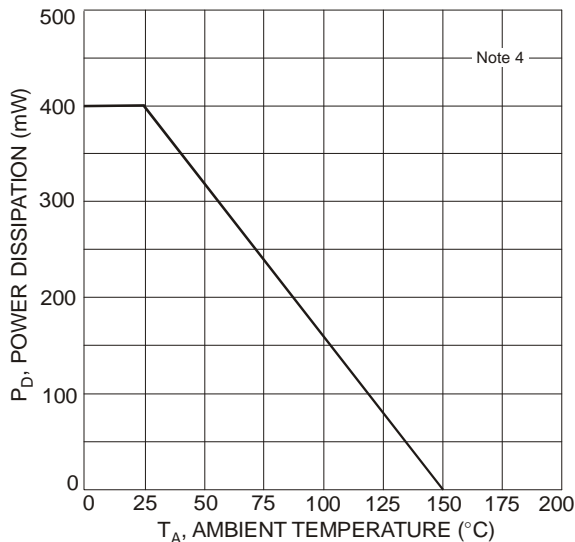


Fig. 1 Power Derating Curve, Total Package

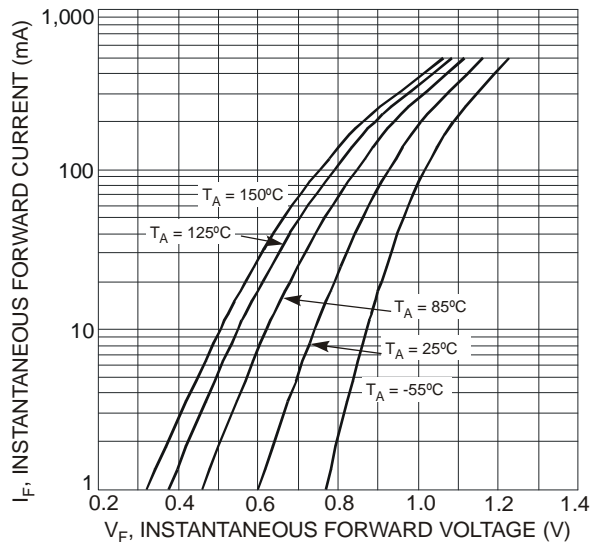


Fig. 2 Typical Forward Characteristics, Per Element

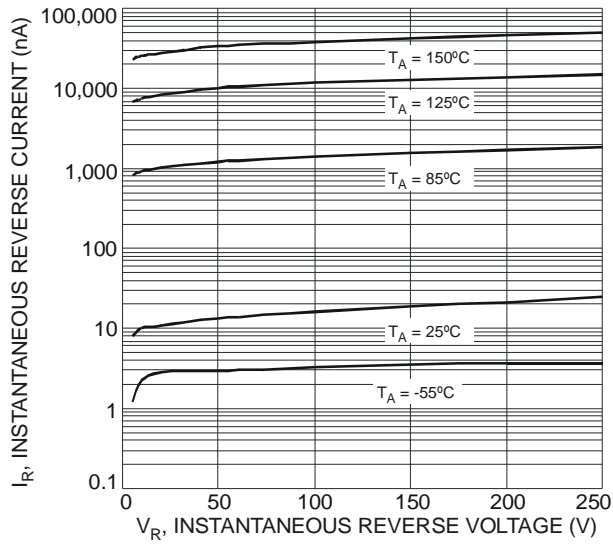


Fig. 3 Typical Reverse Characteristics, Per Element

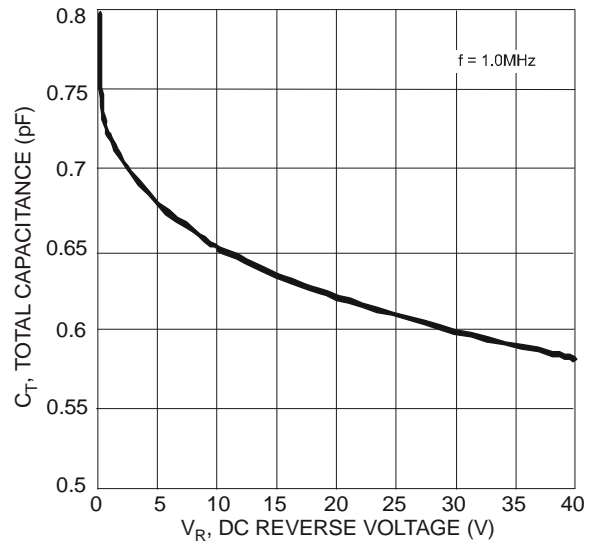
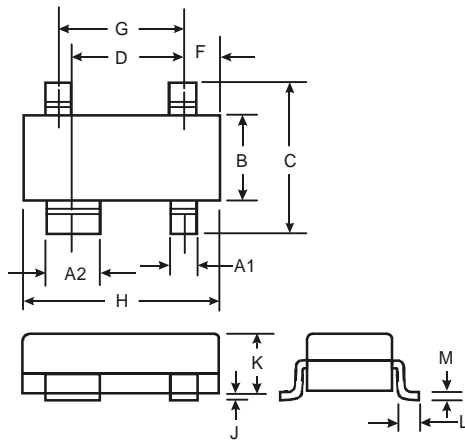


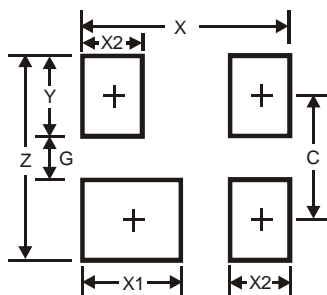
Fig. 4 Typical Total Capacitance vs. Reverse Voltage, Per Element

Package Outline Dimensions



SOT143		
Dim	Min	Max
A1	0.37	0.51
A2	0.77	0.93
B	1.20	1.40
C	2.28	2.48
D	1.58	1.83
F	0.45	0.60
G	1.78	2.03
H	2.80	3.00
J	0.013	1.00
K	0.89	0.10
L	0.46	0.60
M	0.085	0.18
All Dimensions in mm		

Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.70
G	1.30
X	2.50
X1	1.0
X2	0.60
Y	0.70
C	2.0

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2. support or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling can be reasonably expected to result in significant injury to the user.

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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