Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

DUAL SURFACE MOUNT SWITCHING DIODE

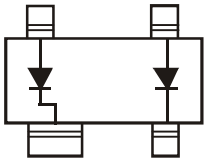
NEW PRODUCT

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)



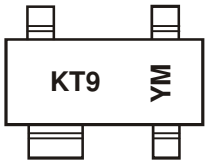
Device Schematic

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

NEW PRODUCT

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic		Symbol	Value	Unit
Repetitive Peak Reverse Voltage	Single Diode	V_{RRM}	300	V
	Series Connection		600	
Working Peak Reverse Voltage DC Blocking Voltage	Single Diode	V_{RWM} V_R	300	V
	Series Connection		600	
RMS Reverse Voltage		$V_{R(RMS)}$	212	V
Forward Current (Note 4)	Single Diode Loaded	I_F	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)	$R_{\theta JA}$	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 75	nA μA	V_R = 250V V_R = 250V, T_J = 150°C
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.

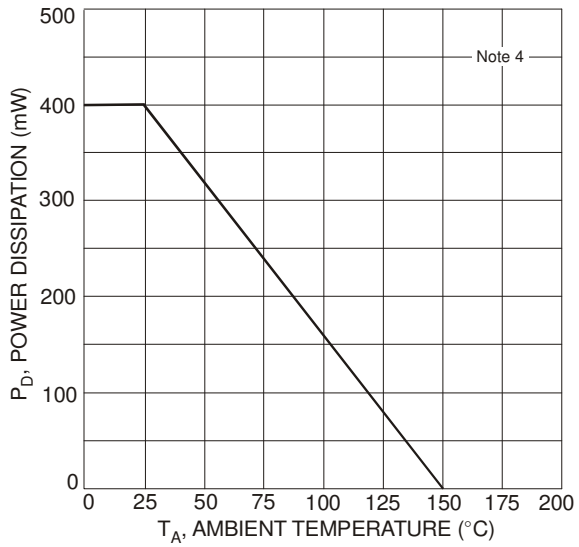


Fig. 1 Power Derating Curve, Total Package

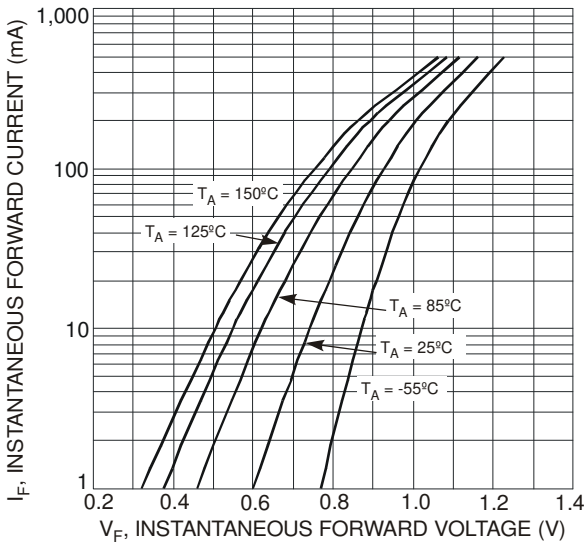


Fig. 2 Typical Forward Characteristics, Per Element

NEW PRODUCT

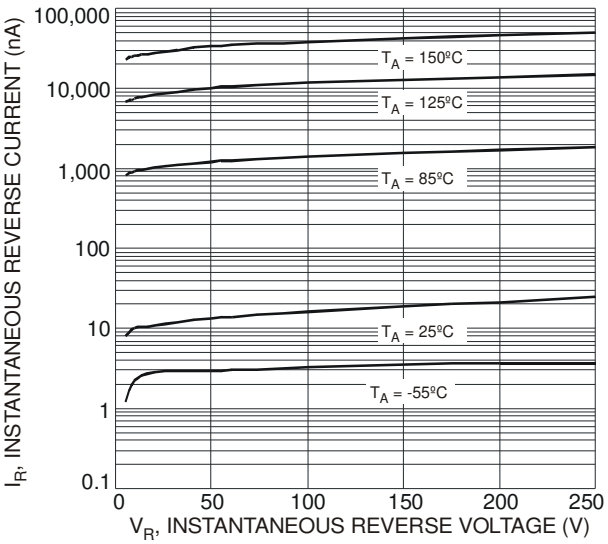


Fig. 3 Typical Reverse Characteristics, Per Element

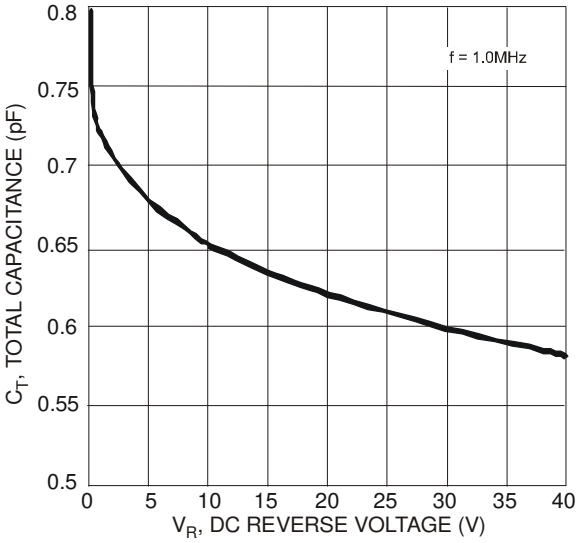
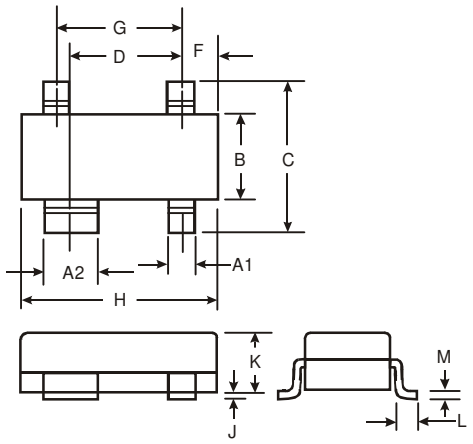


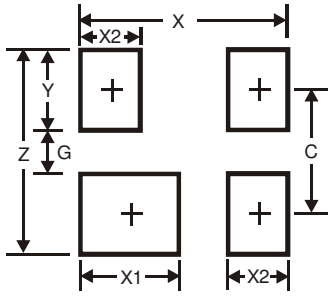
Fig. 4 Typical Total Capacitance vs. Reverse Voltage, Per Element

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

NEW PRODUCT

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