



**THE DATASHEET OF
DZ9F12S92-7**



Features

- Ultra-Small Surface Mount Package (1.0 x 0.6 x 0.37mm)
- Flat-Lead, Thermally-Efficient Package Design
- Exposed, Easily Visible Terminals, No X-ray Inspection of Solder Joints Required (As for DFN Packages)
- **Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

Mechanical Data

- Case: SOD923 (0.2mm Lead Width)
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminal Connections: Cathode Band
- Terminals: Finish – Matte Tin Annealed over Alloy 42 Leadframe. Solderable per MIL-STD-202, Method 208 (e3)
- Weight: 0.001 grams (Approximate)

SOD923 (0.2mm Lead Width)



Top View

Ordering Information (Note 4)

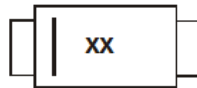
Part Number (Type Number)-7*	Compliance Standard	Case SOD923 (0.2mm Lead Width)	Packaging 10,000/Tape & Reel
---------------------------------	------------------------	-----------------------------------	---------------------------------

*Add "-7" to the appropriate type number in Electrical Characteristics Table, example: 6.2V Zener = DZ9F6V2S92-7.

- Notes:
1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
 2. See http://www.diodes.com/quality/lead_free.html 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

SOD923 (0.2mm Lead Width)



XX = Product Type Marking Code
(See Electrical Characteristics Table)

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Forward Voltage @ I _F = 10mA	V _F	0.9	V

Thermal Characteristics

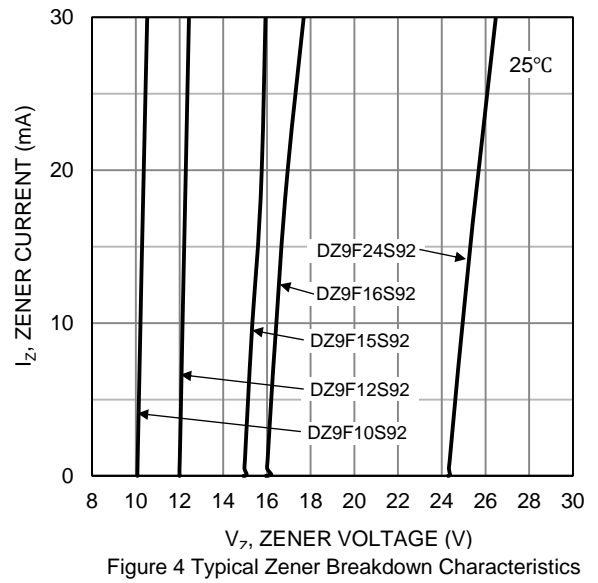
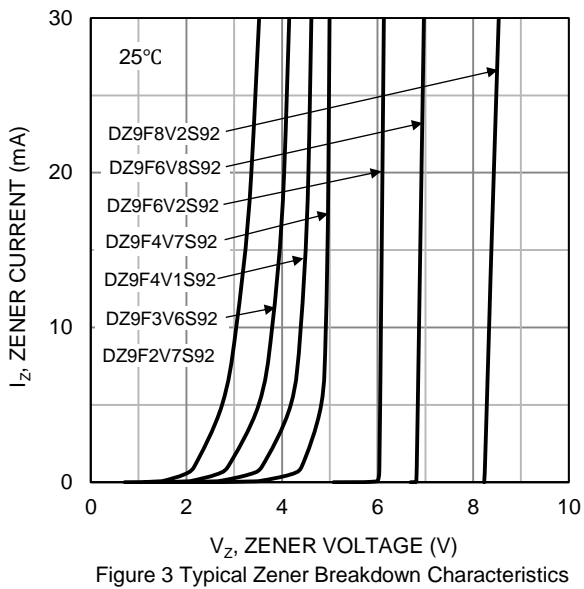
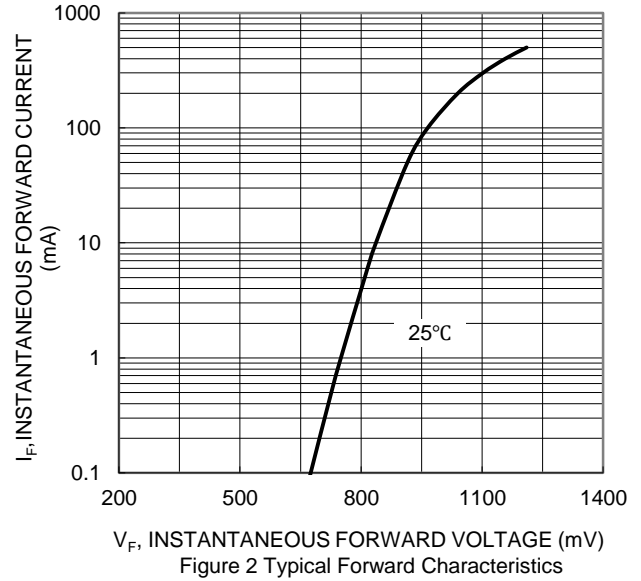
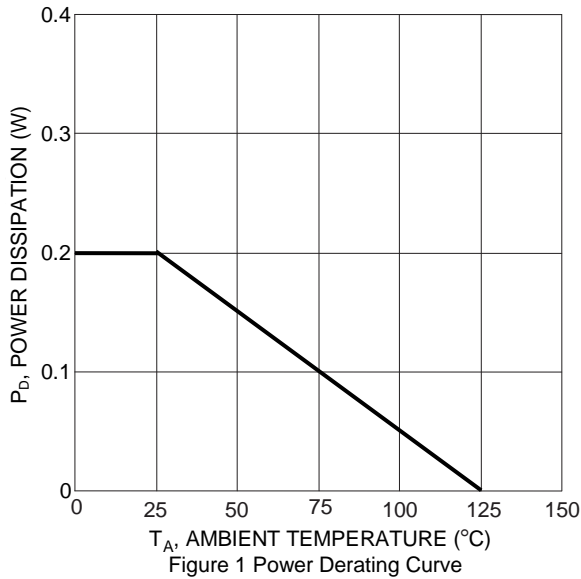
Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P _D	200	mW
Derate Above +25°C (Note 5)		2.0	mW/°C
Thermal Resistance, Junction to Ambient Air (Note 5)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Note: 5. Device mounted on FR-4 PCB with minimum recommended pad layout, as shown in Diodes Incorporated's Suggested Pad Layout document, which can be found on our website at <http://www.diodes.com/package-outlines.html>.

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Type Number	Marking Codes	Zener Voltage Range (Note 6)			Maximum Zener Impedance (Note 7)			Temperature Coefficient		Total Capacitance	Maximum Reverse Current (Note 6)		
		V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	T _C @ I _{ZT}		C _T @ f = 1MHz, V _R = 0V	I _R @ V _R	V _R
		Nom (V)	Min (V)	Max (V)	mA	Ω	mA	Min (mV/°C)	Max (mV/°C)	(pF)	μA	V	
DZ9F2V7S92	ZB	2.7	2.57	2.84	5	100	1,000	1	-3.5	0	210	20	1
DZ9F3V0S92	ZC	3.0	2.85	3.15	5	100	1,000	1	-3.5	0	210	10	1
DZ9F3V3S92	ZD	3.3	3.14	3.47	5	100	1,000	1	-3.5	0	210	10	1
DZ9F3V6S92	ZE	3.6	3.42	3.78	5	100	1,000	1	-3.5	0	210	10	1
DZ9F3V9S92	ZF	3.9	3.71	4.10	5	100	1,000	1	-3.5	-2.5	210	5	1
DZ9F4V1S92	ZI	4.1	3.94	4.36	5	100	1,000	1	-3.5	0	210	5	1
DZ9F4V3S92	ZG	4.3	4.09	4.52	5	100	1,000	1	-3.5	0	210	5	1
DZ9F4V7S92	ZH	4.7	4.47	4.94	5	100	800	0.5	-3.5	0.2	150	2	1
DZ9F5V1S92	ZI	5.1	4.85	5.36	5	80	500	0.5	-2.7	1.2	130	2	1.5
DZ9F5V6S92	ZJ	5.6	5.32	5.88	5	60	200	0.5	-2.0	2.5	115	1	2.5
DZ9F6V2S92	ZK	6.2	5.89	6.51	5	60	100	0.5	0.4	3.7	110	1	3
DZ9F6V8S92	ZL	6.8	6.46	7.14	5	40	60	0.5	1.2	4.5	105	0.5	3.5
DZ9F7V5S92	ZM	7.5	7.13	7.88	5	30	60	0.5	2.5	5.3	100	0.5	4
DZ9F8V2S92	ZN	8.2	7.79	8.61	5	30	60	0.5	3.2	6.2	90	0.5	5
DZ9F9V1S92	ZO	9.1	8.65	9.56	5	30	60	0.5	3.8	7	80	0.5	6
DZ9F10S92	ZP	10	9.50	10.50	5	30	60	0.5	4.5	8	80	0.1	7
DZ9F11S92	ZQ	11	10.45	11.55	5	30	60	0.5	5.4	9	80	0.1	8
DZ9F12S92	ZR	12	11.40	12.60	5	30	80	0.5	6	10	80	0.1	9
DZ9F13S92	ZS	13	12.35	13.65	5	37	80	0.5	7	11	75	0.1	10
DZ9F15S92	ZT	15	14.25	15.75	5	42	80	0.5	9.2	13	70	0.1	11
DZ9F16S92	ZU	16	15.20	16.80	5	50	80	0.5	10.4	14	65	0.1	12
DZ9F18S92	ZV	18	17.10	18.90	5	50	80	0.5	12.4	16	60	0.1	14
DZ9F20S92	ZW	20	19.00	21.00	5	55	100	0.5	14.4	18	55	0.1	15.4
DZ9F22S92	ZX	22	20.90	23.10	5	55	100	0.5	15.4	20	55	0.1	16.8
DZ9F24S92	ZY	24	22.80	25.20	5	70	120	0.5	16.8	22	50	0.1	18.9

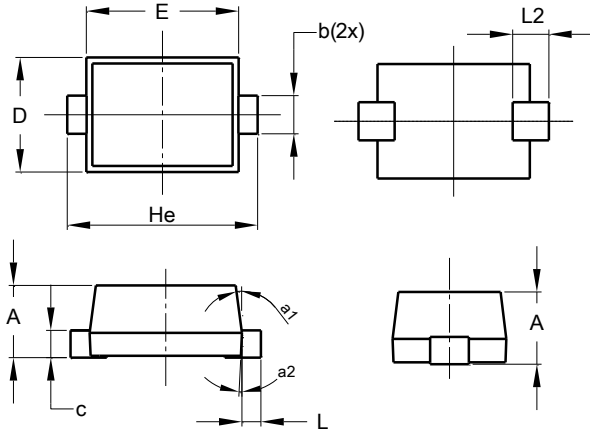
Notes: 6. Short duration pulse test used to minimize self-heating effect.
7. f = 1kHz.



Package Outline Dimensions

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

SOD923 (0.2mm Lead Width)



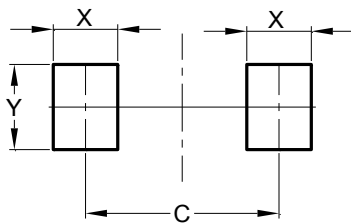
SOD923 (0.2mm Lead Width)			
Dim	Min	Max	Typ
A	0.34	0.40	0.37
b	0.15	0.25	0.20
c	0.070	0.170	0.120
D	0.55	0.65	0.60
E	0.75	0.85	0.80
He	0.95	1.05	1.00
L	0.05	0.15	0.10
L2	0.190 REF		
a1	0°	8°	7°
a2	2°	4°	3°
All Dimensions in mm			

NEW PRODUCT

Suggested Pad Layout

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

SOD923 (0.2mm Lead Width)



Dimensions	Value (in mm)
C	0.900
X	0.300
Y	0.400

IMPORTANT NOTICE

DIODES INCORPORATED MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARDS TO THIS DOCUMENT, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION).

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein. Diodes Incorporated does not assume any liability arising out of the application or use of this document or any product described herein; neither does Diodes Incorporated convey any license under its patent or trademark rights, nor the rights of others. Any Customer or user of this document or products described herein in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on Diodes Incorporated website, harmless against all damages.

Diodes Incorporated does not warrant or accept any liability whatsoever in respect of any products purchased through unauthorized sales channel. Should Customers purchase or use Diodes Incorporated products for any unintended or unauthorized application, Customers shall indemnify and hold Diodes Incorporated and its representatives harmless against all claims, damages, expenses, and attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized application.

Products described herein may be covered by one or more United States, international or foreign patents pending. Product names and markings noted herein may also be covered by one or more United States, international or foreign trademarks.

This document is written in English but may be translated into multiple languages for reference. Only the English version of this document is the final and determinative format released by Diodes Incorporated.

LIFE SUPPORT

Diodes Incorporated products are specifically not authorized for use as critical components in life support devices or systems without the express written approval of the Chief Executive Officer of Diodes Incorporated. As used herein:

A. Life support devices or systems are devices or systems which:

1. are intended to implant into the body, or
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.

B. A critical component is any component in a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or to affect its safety or effectiveness.

Customers represent that they have all necessary expertise in the safety and regulatory ramifications of their life support devices or systems, and acknowledge and agree that they are solely responsible for all legal, regulatory and safety-related requirements concerning their products and any use of Diodes Incorporated products in such safety-critical, life support devices or systems, notwithstanding any devices- or systems-related information or support that may be provided by Diodes Incorporated. Further, Customers must fully indemnify Diodes Incorporated and its representatives against any damages arising out of the use of Diodes Incorporated products in such safety-critical, life support devices or systems.

Copyright © 2017, Diodes Incorporated

www.diodes.com

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View DZ9F12S92-7 on WIN SOURCE](#)

 [Diodes Incorporated](#) Information

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management