

LZ52C4V7W - LZ52C36W(LS)

**THE LZ52C4V7W - LZ52C36W(LS) IS NOT RECOMMENDED FOR NEW DESIGNS.
PLEASE [CONTACT US](#).**

SURFACE-MOUNT ZENER DIODE

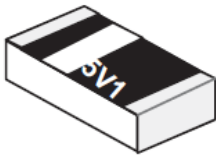
**REVERSE VOLTAGE – 4.7 to 36 Volts
POWER DISSIPATION – 500 mWatts**

FEATURES

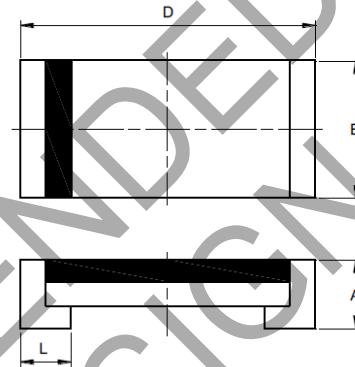
- For surface mounted application
- Silicon epitaxial planar diode
- Ultra small surface-mount package
- Low-leakage current
- 2% tolerance device of Vz
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: 1206
- Package Material: "Green" molding compound (No Br, Sb, Cl)
- Terminals: Lead Free Plating
- Polarity : Color band denotes cathode
- Weight : 10mg (Approximate)



1206



1206			
Dim	Min	Max	Typ
A	0.65	0.85	0.75
D	3.00	3.40	3.20
E	1.30	1.70	1.50
L	0.35	0.75	0.55
All Dimensions in mm			

MAXIMUM RATINGS & THERMAL CHARACTERISTICS @ T_A = 25 °C unless otherwise specified.

Characteristic	Symbol	Value	Unit
Total Power Dissipation	P _{TOT}	500	mW
Thermal Resistance Junction to Ambient Air	R _{θJA}	300	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175	°C

ELECTRICAL CHARACTERISTICS @ T_A = 25 °C unless otherwise specified.

Parameters	Symbol	Test Condition	Max.	Unit
Forward Voltage	V _F	I _F = 200mA	1.5	V

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
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.

Type Number	Marking Code	Zener Voltage Range (Note 4)		Test Current	Maximum Zener Impedance		Maximum Reverse Current	
		V _Z @ I _{ZT}		I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK} =1.0mA	I _R	@V _R
		Min (V)	Max (V)	mA	Ω	Ω	μA	V
LZ52C4V7W	4V7	4.61	4.79	5	70	600	0.5	1.0
LZ52C5V1W	5V1	5.00	5.20	5	50	520	0.1	1.0
LZ52C5V6W	5V6	5.48	5.72	5	30	450	0.1	1.0
LZ52C6V2W	6V2	6.08	6.32	5	10	200	0.1	2.0
LZ52C6V8W	6V8	6.66	6.94	5	8	150	0.1	3.0
LZ52C7V5W	7V5	7.35	7.65	5	7	50	0.1	5.0
LZ52C8V2W	8V2	8.04	8.36	5	7	50	0.1	6.2
LZ52C9V1W	9V1	8.92	9.28	5	10	50	0.1	6.8
LZ52C10W	10	9.80	10.20	5	15	70	0.1	7.5
LZ52C11W	11	10.78	11.22	5	20	70	0.1	8.2
LZ52C12W	12	11.76	12.24	5	20	90	0.1	9.1
LZ52C13W	13	12.74	13.26	5	26	110	0.1	10
LZ52C15W	15	14.70	15.30	5	30	110	0.1	11
LZ52C16W	16	15.68	16.32	5	40	170	0.1	12
LZ52C18W	18	17.64	18.36	5	50	170	0.1	13
LZ52C20W	20	19.60	20.40	5	55	220	0.1	15
LZ52C22W	22	21.56	22.44	5	55	220	0.1	16
LZ52C24W	24	23.52	24.48	5	80	220	0.1	18
LZ52C27W	27	26.46	27.54	5	80	220	0.1	20
LZ52C30W	30	29.40	30.60	5	80	220	0.1	22
LZ52C33W	33	32.34	33.66	5	80	220	0.1	24
LZ52C36W	36	35.28	36.72	5	80	220	0.1	27

Note:

4. Tested with pulses, t_p < 100ms.

NOT RECOMMENDED FOR NEW DESIGN

TYPICAL CHARACTERISTICS
LZ52C4V7W - LZ52C36W

Fig.1 POWER DISSIPATION DERATING CURVE

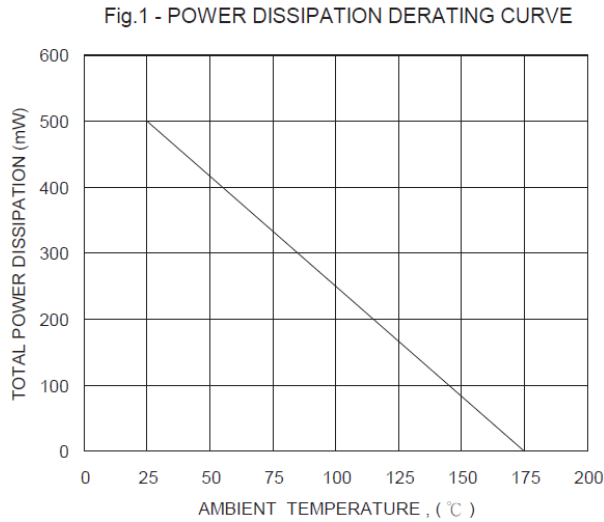


Fig.2 TYPICAL FORWARD CHARACTERISTICS

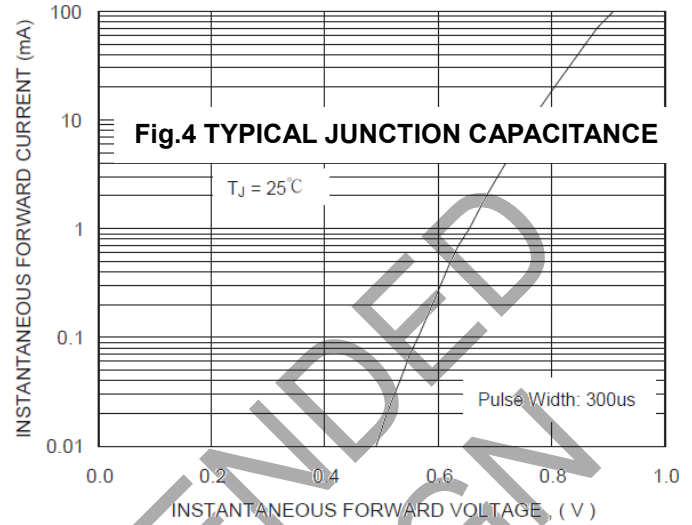
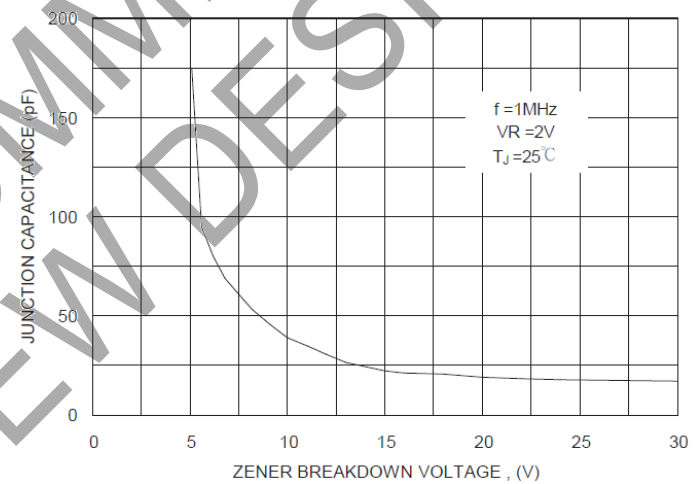
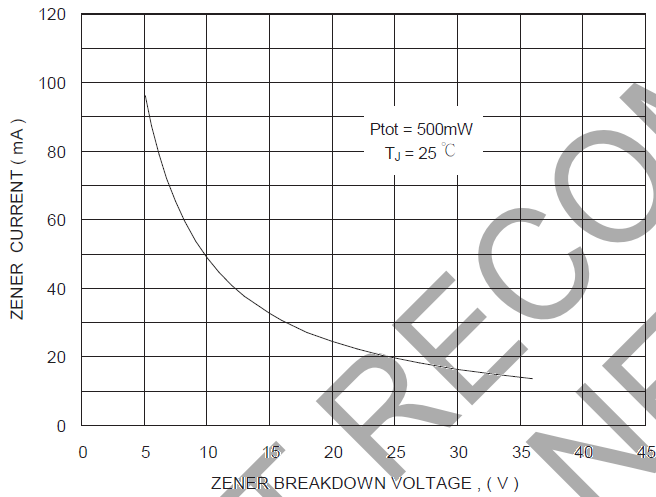
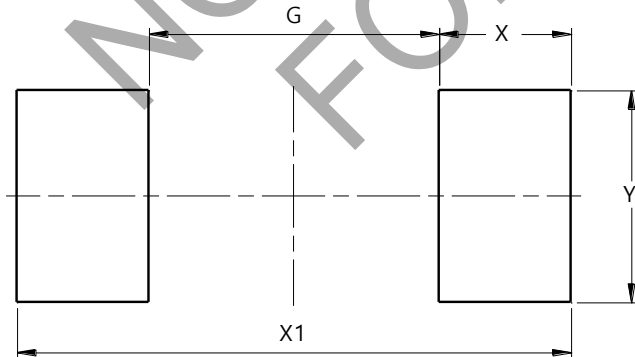


Fig.3 ZENER CURRENT vs. ZENER VOLTAGE



Suggested Pad Layout



Dimensions	Value (in mm)
G	2.2
X	1.0
X1	4.2
Y	1.6

Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
LZ52C4V7W	1206	5000pcs	Tape & Reel
LZ52C5V1W	1206	5000pcs	Tape & Reel
LZ52C5V6W	1206	5000pcs	Tape & Reel
LZ52C6V2W	1206	5000pcs	Tape & Reel
LZ52C6V8W	1206	5000pcs	Tape & Reel
LZ52C7V5W	1206	5000pcs	Tape & Reel
LZ52C8V2W	1206	5000pcs	Tape & Reel
LZ52C9V1W	1206	5000pcs	Tape & Reel
LZ52C10W	1206	5000pcs	Tape & Reel
LZ52C11W	1206	5000pcs	Tape & Reel
LZ52C12W	1206	5000pcs	Tape & Reel
LZ52C13W	1206	5000pcs	Tape & Reel
LZ52C15W	1206	5000pcs	Tape & Reel
LZ52C16W	1206	5000pcs	Tape & Reel
LZ52C18W	1206	5000pcs	Tape & Reel
LZ52C20W	1206	5000pcs	Tape & Reel
LZ52C22W	1206	5000pcs	Tape & Reel
LZ52C24W	1206	5000pcs	Tape & Reel
LZ52C27W	1206	5000pcs	Tape & Reel
LZ52C30W	1206	5000pcs	Tape & Reel
LZ52C33W	1206	5000pcs	Tape & Reel
LZ52C36W	1206	5000pcs	Tape & Reel

Marking Information:



Product Type
Marking Code
ex: 4V7

IMPORTANT NOTICE

1. DIODES INCORPORATED (Diodes) AND ITS SUBSIDIARIES MAKE NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARDS TO ANY INFORMATION CONTAINED IN THIS DOCUMENT, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION).

2. The Information contained herein is for informational purpose only and is provided only to illustrate the operation of Diodes' products described herein and application examples. Diodes does not assume any liability arising out of the application or use of this document or any product described herein. This document is intended for skilled and technically trained engineering customers and users who design with Diodes' products. Diodes' products may be used to facilitate safety-related applications; however, in all instances customers and users are responsible for (a) selecting the appropriate Diodes products for their applications, (b) evaluating the suitability of Diodes' products for their intended applications, (c) ensuring their applications, which incorporate Diodes' products, comply the applicable legal and regulatory requirements as well as safety and functional-safety related standards, and (d) ensuring they design with appropriate safeguards (including testing, validation, quality control techniques, redundancy, malfunction prevention, and appropriate treatment for aging degradation) to minimize the risks associated with their applications.

3. Diodes assumes no liability for any application-related information, support, assistance or feedback that may be provided by Diodes from time to time. Any customer or user of this document or products described herein will assume all risks and liabilities associated with such use, and will hold Diodes and all companies whose products are represented herein or on Diodes' websites, harmless against all damages and liabilities.

4. Products described herein may be covered by one or more United States, international or foreign patents and pending patent applications. Product names and markings noted herein may also be covered by one or more United States, international or foreign trademarks and trademark applications. Diodes does not convey any license under any of its intellectual property rights or the rights of any third parties (including third parties whose products and services may be described in this document or on Diodes' website) under this document.

5. Diodes' products are provided subject to Diodes' Standard Terms and Conditions of Sale (<https://www.diodes.com/about/company/terms-and-conditions/terms-and-conditions-of-sales/>) or other applicable terms. This document does not alter or expand the applicable warranties provided by Diodes. Diodes does not warrant or accept any liability whatsoever in respect of any products purchased through unauthorized sales channel.

6. Diodes' products and technology may not be used for or incorporated into any products or systems whose manufacture, use or sale is prohibited under any applicable laws and regulations. Should customers or users use Diodes' products in contravention of any applicable laws or regulations, or for any unintended or unauthorized application, customers and users will (a) be solely responsible for any damages, losses or penalties arising in connection therewith or as a result thereof, and (b) indemnify and hold Diodes and its representatives and agents harmless against any and all claims, damages, expenses, and attorney fees arising out of, directly or indirectly, any claim relating to any noncompliance with the applicable laws and regulations, as well as any unintended or unauthorized application.

7. While efforts have been made to ensure the information contained in this document is accurate, complete and current, it may contain technical inaccuracies, omissions and typographical errors. Diodes does not warrant that information contained in this document is error-free and Diodes is under no obligation to update or otherwise correct this information. Notwithstanding the foregoing, Diodes reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein. 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.

8. Any unauthorized copying, modification, distribution, transmission, display or other use of this document (or any portion hereof) is prohibited. Diodes assumes no responsibility for any losses incurred by the customers or users or any third parties arising from any such unauthorized use.

9. This Notice may be periodically updated with the most recent version available at <https://www.diodes.com/about/company/terms-and-conditions/important-notice>

The Diodes logo is a registered trademark of Diodes Incorporated in the United States and other countries.

All other trademarks are the property of their respective owners.

© 2023 Diodes Incorporated. All Rights Reserved.

www.diodes.com