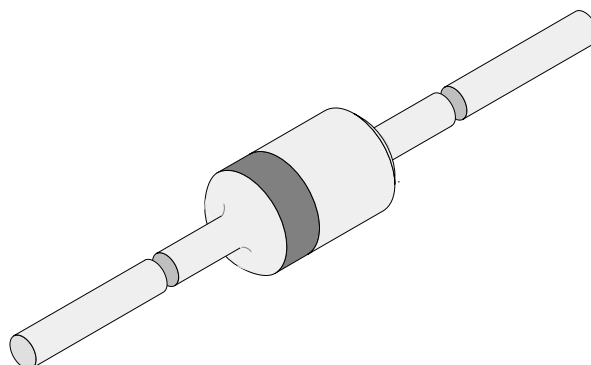


Silicon Epitaxial Planar Z-Diodes

Features

- Sharp edge in reverse characteristics
- Low reverse current
- Low noise
- Very high stability
- Available with tighter tolerances



94 9369

Applications

Voltage stabilization

Order Instruction

Type	Ordering Code	Remarks
BZX85C2V7	BZX85C2V7-TAP	Ammopack
	BZX85C2V7-TR	Tape and Reel

Absolute Maximum Ratings

 $T_j = 25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	$I = 4\text{ mm}$, $T_L = 25^{\circ}\text{C}$		P_V	1.3	W
Junction temperature			T_j	175	$^{\circ}\text{C}$
Storage temperature range			T_{stg}	-65...+175	$^{\circ}\text{C}$

Maximum Thermal Resistance

 $T_j = 25^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	$I = 4\text{ mm}$, $T_L = \text{constant}$	R_{thJA}	110	K/W

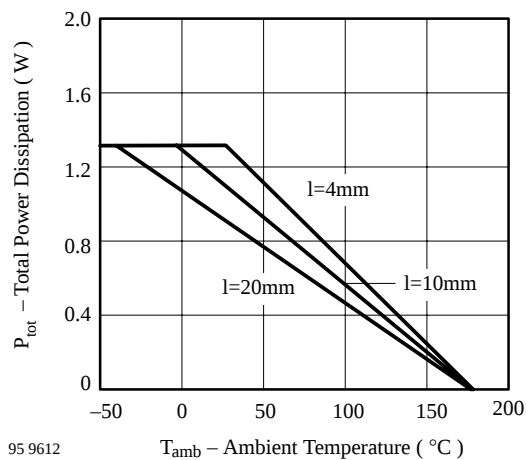
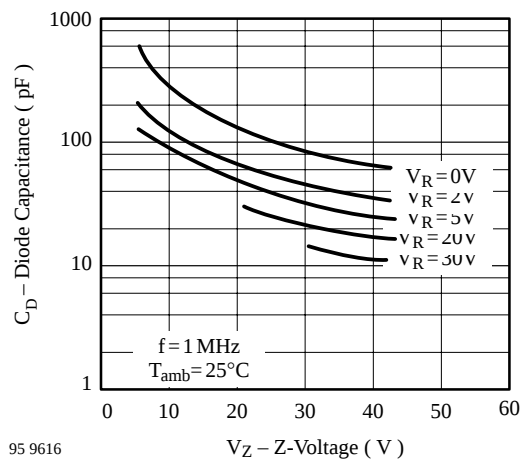
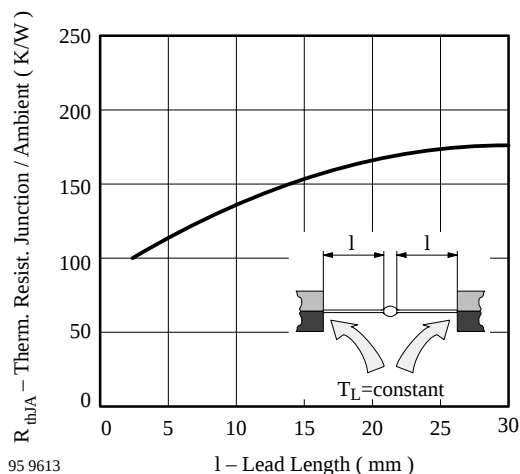
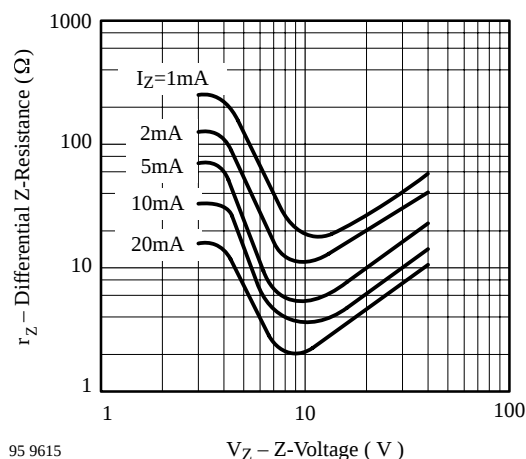
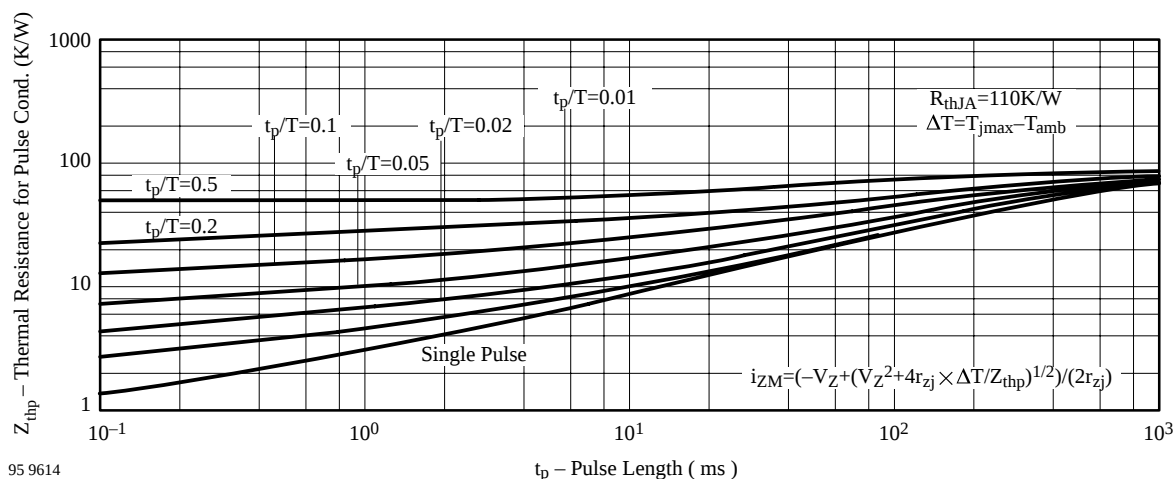
Electrical Characteristics

 $T_j = 25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 200\text{mA}$		V_F			1	V

Type	V _{Znom}	I _{ZT} for V _{ZT} and r _{zT}			r _{zik} at I _{ZK}		I _R at V _R		TK _{VZ}
BZX85C...	V	mA	V ¹⁾	Ω	Ω	mA	μA	V	%/K
2V7	2.7	80	2.5 to 2.9	< 20	< 400	1	< 150	1	-0.08 to -0.05
3V0	3.0	80	2.8 to 3.2	< 20	< 400	1	< 100	1	-0.08 to -0.05
3V3	3.3	80	3.1 to 3.5	< 20	< 400	1	< 40	1	-0.08 to -0.05
3V6	3.6	60	3.4 to 3.8	< 20	< 500	1	< 20	1	-0.08 to -0.05
3V9	3.9	60	3.7 to 4.1	< 15	< 500	1	< 10	1	-0.07 to -0.02
4V3	4.3	50	4.0 to 4.6	< 13	< 500	1	< 3	1	-0.07 to -0.01
4V7	4.7	45	4.4 to 5.0	< 13	< 500	1	< 3	1	-0.03 to +0.04
5V1	5.1	45	4.8 to 5.4	< 10	< 500	1	< 1	1.5	-0.01 to +0.04
5V6	5.6	45	5.2 to 6.0	< 7	< 400	1	< 1	2	0 to +0.045
6V2	6.2	35	5.8 to 6.6	< 4	< 300	1	< 1	3	+0.01 to +0.055
6V8	6.8	35	6.4 to 7.2	< 3.5	< 300	1	< 1	4	+0.015 to +0.06
7V5	7.5	35	7.0 to 7.9	< 3	< 200	0.5	< 1	4.5	+0.02 to +0.065
8V2	8.2	25	7.7 to 8.7	< 5	< 200	0.5	< 1	6.2	0.03 to 0.07
9V1	9.1	25	8.5 to 9.6	< 5	< 200	0.5	< 1	6.8	0.035 to 0.075
10	10	25	9.4 to 10.6	< 7	< 200	0.5	< 0.5	7.5	0.04 to 0.08
11	11	20	10.4 to 11.6	< 8	< 300	0.5	< 0.5	8.2	0.045 to 0.08
12	12	20	11.4 to 12.7	< 9	< 350	0.5	< 0.5	9.1	0.045 to 0.085
13	13	20	12.4 to 14.1	< 10	< 400	0.5	< 0.5	10	0.05 to 0.085
15	15	15	13.8 to 15.6	< 15	< 500	0.5	< 0.5	11	0.055 to 0.09
16	16	15	15.3 to 17.1	< 15	< 500	0.5	< 0.5	12	0.055 to 0.09
18	18	15	16.8 to 19.1	< 20	< 500	0.5	< 0.5	13	0.06 to 0.09
20	20	10	18.8 to 21.2	< 24	< 600	0.5	< 0.5	15	0.06 to 0.09
22	22	10	20.8 to 23.3	< 25	< 600	0.5	< 0.5	16	0.06 to 0.095
24	24	10	22.8 to 25.6	< 25	< 600	0.5	< 0.5	18	0.06 to 0.095
27	27	8	25.1 to 28.9	< 30	< 750	0.25	< 0.5	20	0.06 to 0.095
30	30	8	28 to 32	< 30	< 1000	0.25	< 0.5	22	0.06 to 0.095
33	33	8	31 to 35	< 35	< 1000	0.25	< 0.5	24	0.06 to 0.095
36	36	8	34 to 38	< 40	< 1000	0.25	< 0.5	27	0.06 to 0.095
39	39	6	37 to 41	< 50	< 1000	0.25	< 0.5	30	0.06 to 0.095
43	43	6	40 to 46	< 50	< 1000	0.25	< 0.5	33	0.06 to 0.095
47	47	4	44 to 50	< 90	< 1500	0.25	< 0.5	36	0.06 to 0.095
51	51	4	48 to 54	< 115	< 1500	0.25	< 0.5	39	0.06 to 0.095
56	56	4	52 to 60	< 120	< 2000	0.25	< 0.5	43	0.06 to 0.095
62	62	4	58 to 66	< 125	< 2000	0.25	< 0.5	47	0.06 to 0.095
68	68	4	64 to 72	< 130	< 2000	0.25	< 0.5	51	0.06 to 0.095
75	75	4	70 to 79	< 135	< 2000	0.25	< 0.5	56	0.06 to 0.095

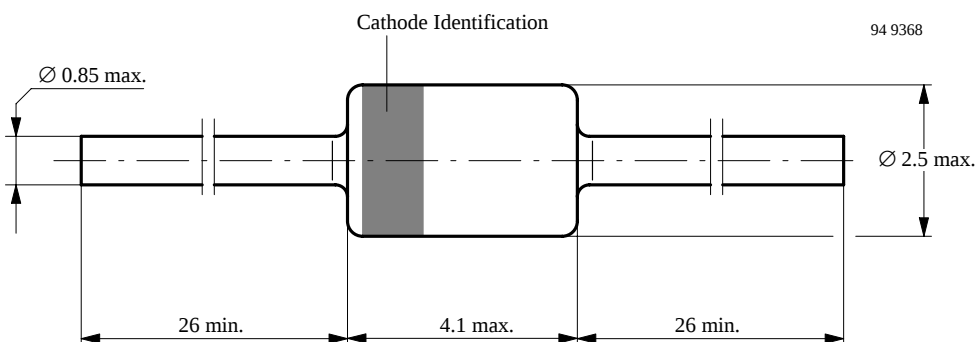
¹⁾ Tighter tolerances available on request: BZX85B... ± 2% of V_{Znom}

Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise specified)

Figure 1. Total Power Dissipation vs. Ambient Temperature

Figure 3. Diode Capacitance vs. Z-Voltage

Figure 2. Thermal Resistance vs. Lead Length

Figure 4. Differential Z-Resistance vs. Z-Voltage

Figure 5. Thermal Response

Dimensions in mm


technical drawings
according to DIN
specifications

Standard Glass Case
54 B 2 DIN 41880
JEDEC DO 41
Weight max. 0.3 g





Ozone Depleting Substances Policy Statement

It is the policy of **Vishay Semiconductor GmbH** to

1. Meet all present and future national and international statutory requirements.
2. Regularly and continuously improve the performance of our products, processes, distribution and operating systems with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

It is particular concern to control or eliminate releases of those substances into the atmosphere which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) intend to severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

Vishay Semiconductor GmbH has been able to use its policy of continuous improvements to eliminate the use of ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively
2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA
3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

Vishay Semiconductor GmbH can certify that our semiconductors are not manufactured with ozone depleting substances and do not contain such substances.

We reserve the right to make changes to improve technical design and may do so without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer. Should the buyer use Vishay-Semiconductors products for any unintended or unauthorized application, the buyer shall indemnify Vishay-Semiconductors against all claims, costs, damages, and expenses, arising out of, directly or indirectly, any claim of personal damage, injury or death associated with such unintended or unauthorized use.

Vishay Semiconductor GmbH, P.O.B. 3535, D-74025 Heilbronn, Germany
Telephone: 49 (0) 7131 67 2831, Fax number: 49 (0) 7131 67 2423



Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.



**Стандарт
Электрон
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

Наши контакты:

Телефон: +7 812 627 14 35

Электронная почта: sales@st-electron.ru

Адрес: 198099, Санкт-Петербург,
Промышленная ул, дом № 19, литера Н,
помещение 100-Н Офис 331