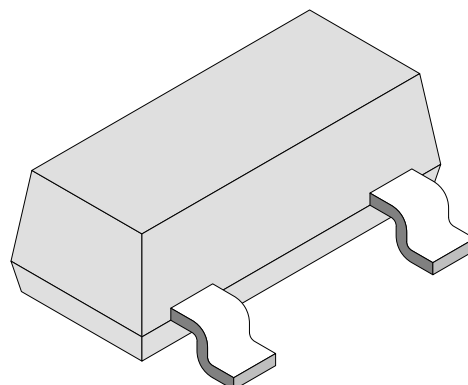


# 300 mW Dual Surface Mount Zener Diodes

## Features

- SOT–23 surface mount package
- 300 mW power dissipation rating
- Ideally suited for automatic insertion
- $\Delta V_Z$  for both diodes in one case is  $\leq 5\%$
- Common anode style available see AZ series



94 8550

## Absolute Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Power dissipation	on fiberglass substrate	$P_d$	300	mW
Junction and storage temperature range		$T_j = T_{stg}$	$-55...+150$	$^\circ\text{C}$

## Maximum Thermal Resistance

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

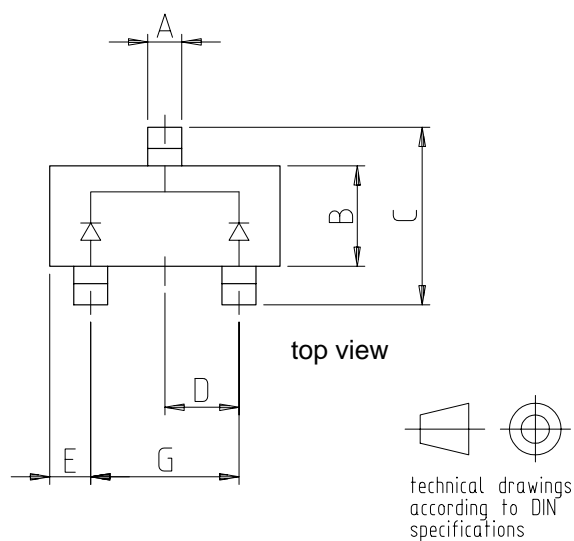
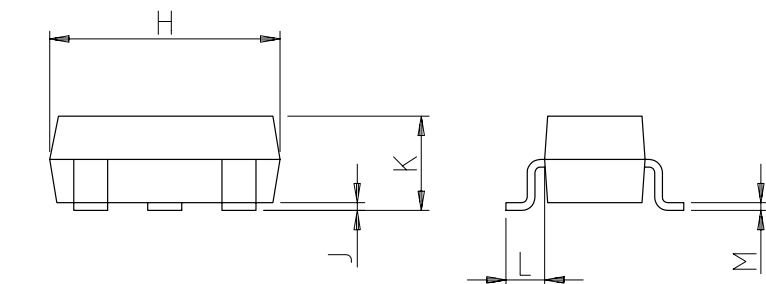
Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on fiberglass substrate	$R_{thJA}$	420	K/W

Type DZ23C...	Marking	V <sub>Z</sub> V	Z <sub>ZT</sub> Ω	Z <sub>ZK</sub> Ω	T <sub>C</sub> %/°C	V <sub>R</sub> V
		@ I <sub>ZT</sub> =5mA	@ I <sub>ZT</sub> =5mA	@ I <sub>ZT</sub> =1mA		@ I <sub>R</sub> =0.1μA
2V7	KV1	2.5 to 2.9	83	500	−0.065	–
3V0	KV2	2.8 to 3.2	95	500	−0.060	–
3V3	KV3	3.1 to 3.5	95	500	−0.055	–
3V6	KV4	3.4 to 3.8	95	500	−0.055	–
3V9	KV5	3.7 to 4.1	95	500	−0.050	–
4V3	KV6	4.0 to 4.6	95	500	−0.035	–
4V7	KV7	4.4 to 5.0	78	500	−0.015	–
5V1	KV8	4.8 to 5.4	60	480	+0.005	0.8
5V6	KV9	5.2 to 6.0	40	400	+0.020	1.0
6V2	KVA	5.8 to 6.6	10	200	+0.030	2.0
6V8	KVB	6.4 to 7.2	8	150	+0.045	3.0
7V5	KVC	7.0 to 7.9	7	50	+0.050	5.0
8V2	KVD	7.7 to 8.7	7	50	+0.055	6.0
9V1	KVE	8.5 to 9.6	10	50	+0.065	7.0
10	KVF	9.4 to 10.6	15	70	+0.065	7.5
11	KVG	10.4 to 11.6	20	70	+0.070	8.5
12	KVH	11.4 to 12.7	20	90	+0.075	9.0
13	KVI	12.4 to 14.1	25	110	+0.080	10.0
15	KVJ	13.8 to 15.6	30	110	+0.080	11.0
16	KVK	15.3 to 17.1	40	170	+0.090	12.0
18	KVL	16.8 to 19.1	50	170	+0.090	14.0
20	KVM	18.8 to 21.2	50	220	+0.090	15.0
22	KVN	20.8 to 23.3	55	220	+0.090	17.0
24	KVO	22.8 to 25.6	80	220	+0.090	18.0
27	KVP	25.1 to 28.9	80	250	+0.090	20.0
30	KVQ	28 to 32	80	250	+0.090	22.5
33	KVR	31 to 35	80	250	+0.090	25.0
36	KVS	34 to 38	90	250	+0.090	27.0
39	KVT	37 to 41	90	300	+0.110	29.0
43	KVU	40 to 46	100	700	+0.110	32.0
47	KVV	44 to 50	100	750	+0.110	35.0
51	KVW	48 to 54	100	750	+0.110	38.0

1) Device on fiberglass substrate

2) Tested with I<sub>ZT</sub> current pulses. Pulse width = 5 ms.

## Dimensions in mm



SOT-23		
Dim	Min	Max
A	0.37	0.50
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.79	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.130
All Dimensions in mm		

14372

Case: SOT23, molded plastic  
 Mounting position: any  
 Approx. weight: 0.008 grams

### 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-Telefunken products for any unintended or unauthorized application, the buyer shall indemnify Vishay-Telefunken 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