

Zener diode

UDZS Series

●Applications

Constant voltage control

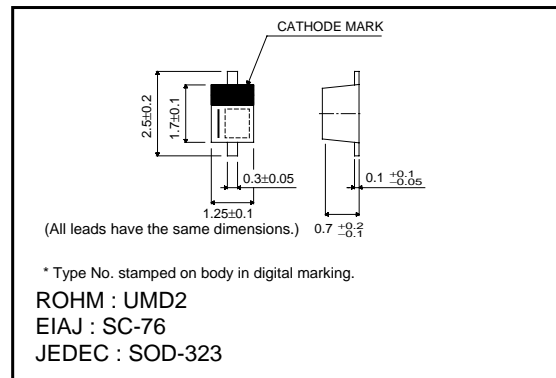
●Features

- 1) Compact, 2-pin mini-mold type for high-density mounting. (UMD2)
- 2) Non-wire bonding structure improves.
- 3) High demand voltage range (3.6V-36V) is manufactured on high-efficient non-wire bonding production line.

●Construction

Silicon epitaxial planar

●External dimensions (Unit : mm)



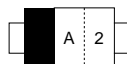
●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power dissipation	P	200	mW
Junction temperature	T _j	125	°C
Storage temperature	T _{stg}	-55 to +150	°C
Operating temperature	T _{opr}	-55 to +150	°C

●Markings (Type No.)

Product name	Type No.	Product name	Type No.	Product name	Type No.
UDZS 3.6B	6 2	UDZS 8.2B	J 2	UDZS 20B	7 5
UDZS 3.9B	7 2	UDZS 9.1B	L 2	UDZS 22B	8 5
UDZS 4.3B	8 2	UDZS 10B	0 5	UDZS 24B	9 5
UDZS 4.7B	9 2	UDZS 11B	1 5	UDZS 27B	A 5
UDZS 5.1B	A 2	UDZS 12B	2 5	UDZS 30B	C 5
UDZS 5.6B	C 2	UDZS 13B	3 5	UDZS 33B	E 5
UDZS 6.2B	E 2	UDZS 15B	4 5	UDZS 36B	F 5
UDZS 6.8B	F 2	UDZS 16B	5 5	-	-
UDZS 7.5B	H 2	UDZS 18B	6 5	-	-

(Ex.) UDZS 5.1B



Diodes

●Electrical characteristics (Ta=25°C)

Type	Zener voltage			Operating resistance		Rising operating resistance		Reverse current	
	Vz(V)			Zz(Ω)		Zzk(Ω)		IR(μA)	
	Min.	Max.	Iz (mA)	Max.	Iz (mA)	Max.	Iz (mA)	Max.	VR (V)
UDZS 3.6B	3.600	3.845	5	100	5	1000	1.0	10	1.0
UDZS 3.9B	3.890	4.160	5	100	5	1000	1.0	5	1.0
UDZS 4.3B	4.170	4.430	5	100	5	1000	1.0	5	1.0
UDZS 4.7B	4.550	4.750	5	100	5	800	0.5	2	1.0
UDZS 5.1B	4.980	5.200	5	80	5	500	0.5	2	1.5
UDZS 5.6B	5.490	5.730	5	60	5	200	0.5	1	2.5
UDZS 6.2B	6.060	6.330	5	60	5	100	0.5	1	3.0
UDZS 6.8B	6.650	6.930	5	40	5	60	0.5	0.5	3.5
UDZS 7.5B	7.280	7.600	5	30	5	60	0.5	0.5	4.0
UDZS 8.2B	8.020	8.360	5	30	5	60	0.5	0.5	5.0
UDZS 9.1B	8.850	9.230	5	30	5	60	0.5	0.5	6.0
UDZS 10B	9.770	10.210	5	30	5	60	0.5	0.1	7.0
UDZS 11B	10.760	11.220	5	30	5	60	0.5	0.1	8.0
UDZS 12B	11.740	12.240	5	30	5	80	0.5	0.1	9.0
UDZS 13B	12.910	13.490	5	37	5	80	0.5	0.1	10.0
UDZS 15B	14.340	14.980	5	42	5	80	0.5	0.1	11.0
UDZS 16B	15.850	16.510	5	50	5	80	0.5	0.1	12.0
UDZS 18B	17.560	18.350	5	65	5	80	0.5	0.1	13.0
UDZS 20B	19.520	20.390	5	85	5	100	0.5	0.1	15.0
UDZS 22B	21.540	22.470	5	100	5	100	0.5	0.1	17.0
UDZS 24B	23.720	24.780	5	120	5	120	0.5	0.1	19.0
UDZS 27B	26.190	27.530	5	150	5	150	0.5	0.1	21.0
UDZS 30B	29.190	30.690	5	200	5	200	0.5	0.1	23.0
UDZS 33B	32.150	33.790	5	250	5	250	0.5	0.1	25.0
UDZS 36B	35.070	36.870	5	300	5	300	0.5	0.1	27.0

Notes) 1. The Zener voltage (Vz) is measured 40ms after power is supplied.

2. The operating resistances (Zz, Zzk) are measured by superimposing a minute alternating current on the regulated current (Iz).

Diodes

●Electrical characteristic curves (Ta=25°C)

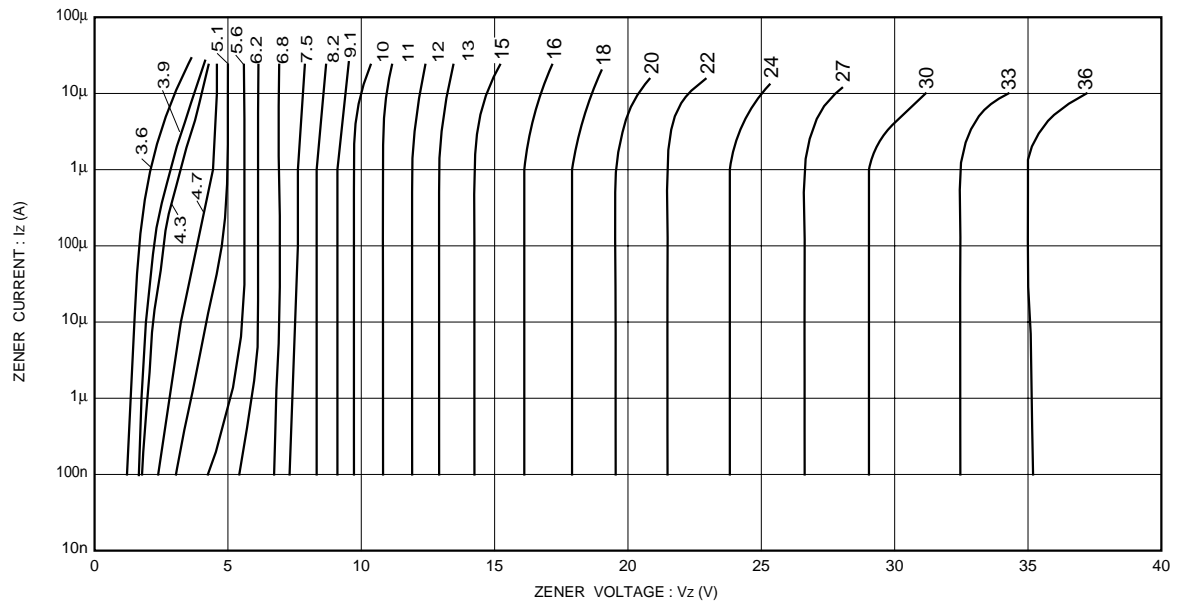


Fig.1 Zener voltage characteristics

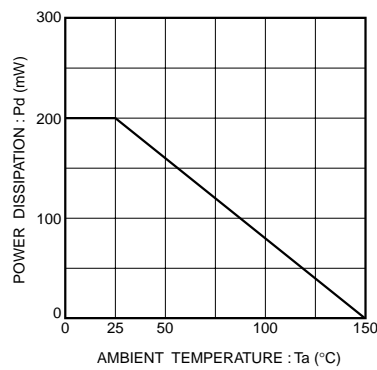


Fig.2 Derating curve

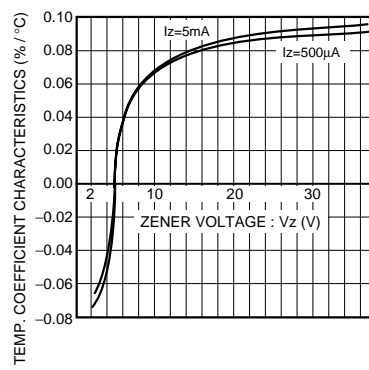
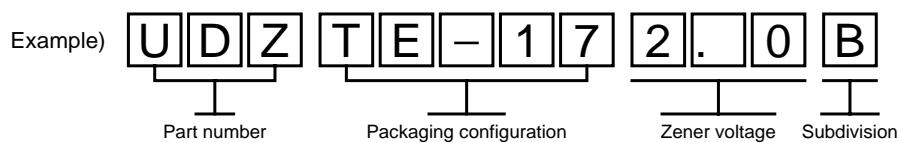


Fig.3 Zener voltage-temp. coefficient characteristics

●Makeup of the part number

- Please follow the part number designation when the order is placed.
- Fill in from the left, leaving any extra boxes empty on the right.
- Please refer packing specification about packing form.

●Zener diodes



Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard use and operation. Please pay careful attention to the peripheral conditions when designing circuits and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or otherwise dispose of the same, no express or implied right or license to practice or commercially exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document use silicon as a basic material.
Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.

In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.