Zener diodes

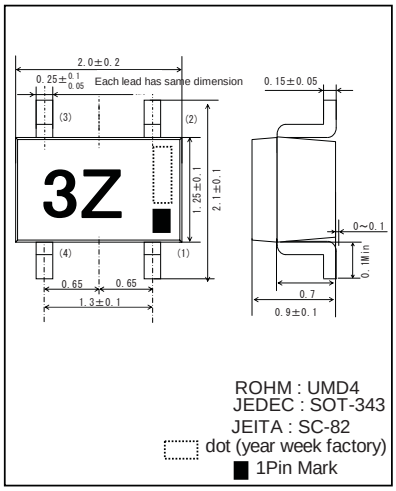
UMZ8.2K

●**Applications**
Constant voltage control

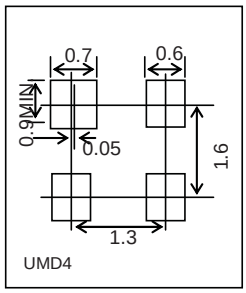
●**Features**
1) Ultra Small mold type.
(UMD4)
2) High reliability

●**Construction**
Silicon epitaxial planar

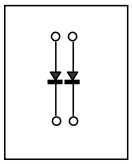
●**Dimensions** (Unit : mm)



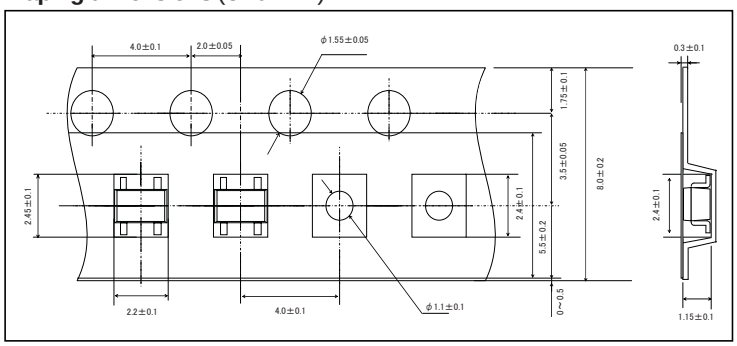
●**Land size figure** (Unit : mm)



●**Structure**



●**Taping dimensions** (Unit : mm)



●**Absolute maximum ratings** (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power dissipation	P	200	mW
Junction temperature	Tj	150	℃
Storage temperature	Tstg	-55 to +150	℃
Operating temperature	Topr	-55 to +150	℃

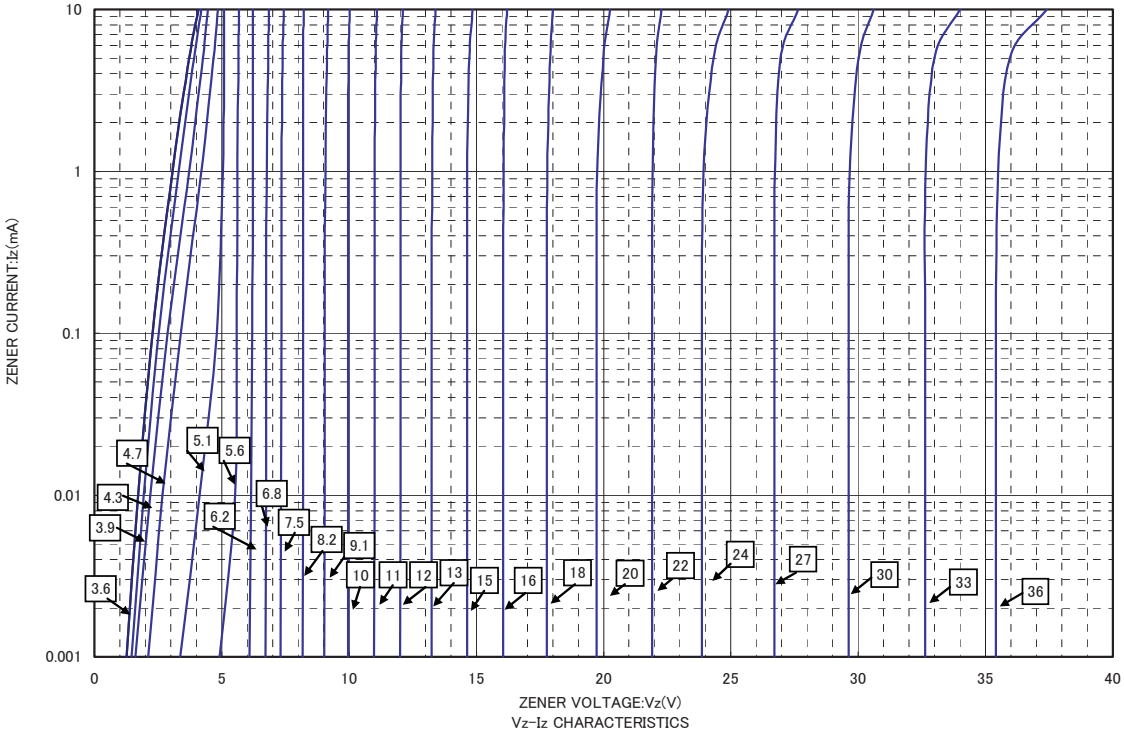
●**Electrical characteristics** (Ta=25°C)

TYP.	Symbol				
	Zener voltage : Vz(V)			Reverse current : IR(uA)	
	MIN.	MAX.	Iz(mA)	MAX.	VR(V)
UMZ3.6K	3.600	3.845	5.0	10.0	1.0
UMZ3.9K	3.890	4.160	5.0	5.0	1.0
UMZ4.3K	4.170	4.430	5.0	5.0	1.0
UMZ4.7K	4.550	4.750	5.0	2.0	1.0
UMZ5.1K	4.980	5.200	5.0	2.0	1.5
UMZ5.6K	5.490	5.730	5.0	1.0	2.5
UMZ6.2K	6.060	6.330	5.0	1.0	3.0
UMZ6.8K	6.650	6.930	5.0	0.5	3.5
UMZ7.5K	7.280	7.600	5.0	0.5	4.0
UMZ8.2K	8.020	8.360	5.0	0.5	5.0
UMZ9.1K	8.850	9.230	5.0	0.5	6.0
UMZ10K	9.770	10.210	5.0	0.1	7.0
UMZ11K	10.760	11.220	5.0	0.1	8.0
UMZ12K	11.740	12.240	5.0	0.1	9.0
UMZ13K	12.910	13.490	5.0	0.1	10.0
UMZ15K	14.340	14.980	5.0	0.1	11.0
UMZ16K	15.850	16.510	5.0	0.1	12.0
UMZ18K	17.560	18.350	5.0	0.1	13.0
UMZ20K	19.520	20.390	5.0	0.1	15.0
UMZ22K	21.540	22.470	5.0	0.1	17.0
UMZ24K	23.720	24.780	5.0	0.1	19.0
UMZ27K	26.190	27.530	5.0	0.1	21.0
UMZ30K	29.190	30.690	5.0	0.1	23.0
UMZ33K	32.150	33.790	5.0	0.1	25.0
UMZ36K	35.070	36.870	5.0	0.1	27.0

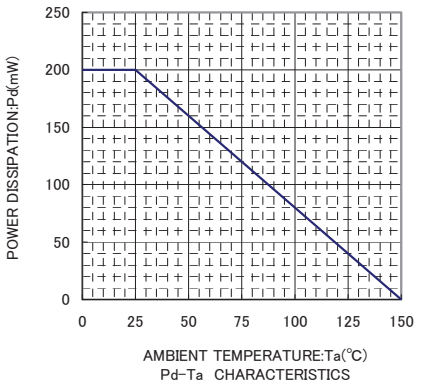
(1)The zener voltage(Vz) is measured 40ms after power is supplied.

●**MARKING (TYPE NO.)**

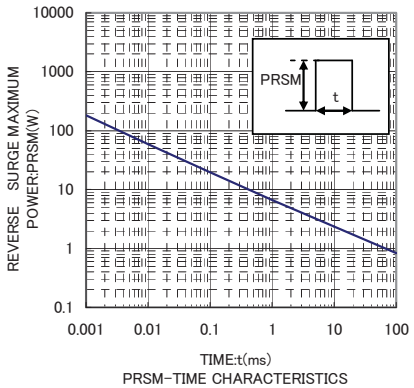
TYPE	TYPE NO.	TYPE	TYPE NO.
UMZ 3.6K	5U	UMZ 12K	2L
UMZ 3.9K	5V	UMZ 13K	5B
UMZ 4.3K	5W	UMZ 15K	2M
UMZ 4.7K	5X	UMZ 16K	2N
UMZ 5.1K	5Y	UMZ 18K	2P
UMZ 5.6K	3V	UMZ 20K	2Q
UMZ 6.2K	5Z	UMZ 22K	2R
UMZ 6.8K	3X	UMZ 24K	2S
UMZ 7.5K	2E	UMZ 27K	2T
UMZ 8.2K	2H	UMZ 30K	2U
UMZ 9.1K	5E	UMZ 33K	2V
UMZ 10K	3Z	UMZ 36K	2W
UMZ 11K	2K		



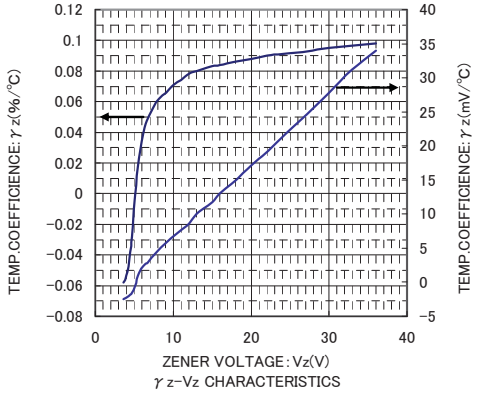
Vz-Iz CHARACTERISTICS



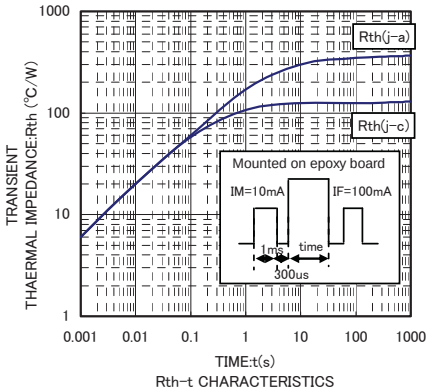
Pd-Ta CHARACTERISTICS



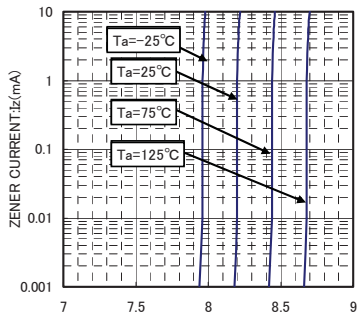
PRSM-TIME CHARACTERISTICS



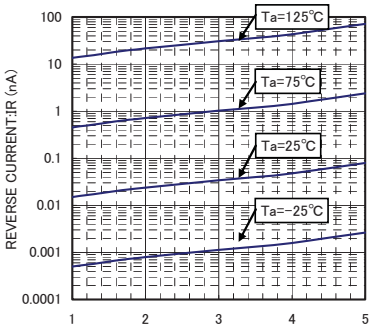
γz-Vz CHARACTERISTICS



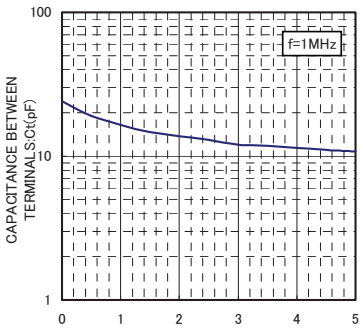
Rth-t CHARACTERISTICS



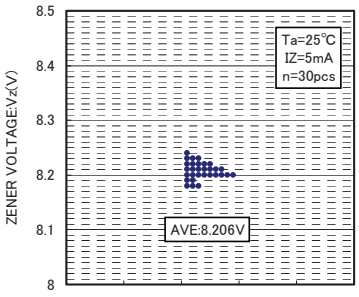
Vz–Iz CHARACTERISTICS



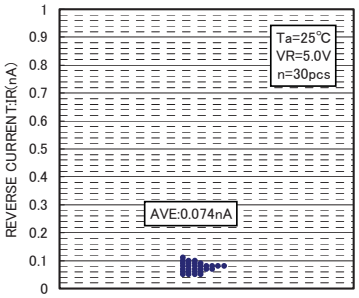
VR–IR CHARACTERISTICS



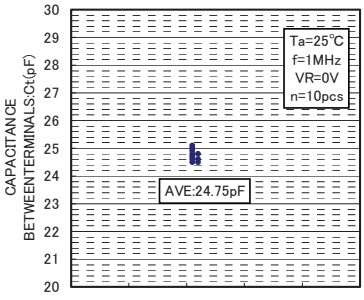
VR–Ct CHARACTERISTICS



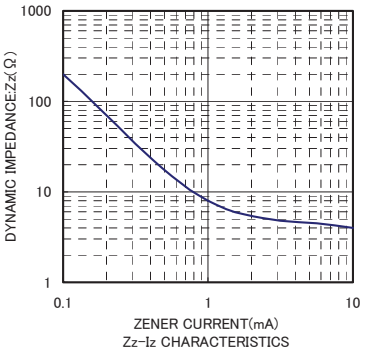
Vz DISPERSION MAP



IR DISPERSION MAP



Ct DISPERSION MAP



Zz–Iz CHARACTERISTICS

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 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.
It is our top priority to supply products with the utmost quality and reliability. However, there is always a chance of failure due to unexpected factors. Therefore, please take into account the derating characteristics and allow for sufficient safety features, such as extra margin, anti-flammability, and fail-safe measures when designing in order to prevent possible accidents that may result in bodily harm or fire caused by component failure. ROHM cannot be held responsible for any damages arising from the use of the products under conditions out of the range of the specifications or due to non-compliance with the NOTES specified in this catalog.

Thank you for your accessing to ROHM product informations.
More detail product informations and catalogs are available, please contact your nearest sales office.

ROHM Customer Support System

THE AMERICAS / EUROPE / ASIA / JAPAN

www.rohm.com

Contact us : webmaster@rohm.co.jp

Copyright © 2008 ROHM CO.,LTD.

ROHM CO., LTD. 21 Saiin Mizosaki-cho, Ukyo-ku, Kyoto 615-8585, Japan
TEL : +81-75-311-2121
FAX : +81-75-315-0172