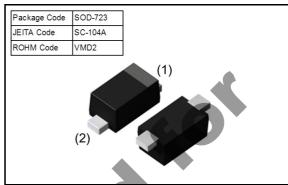


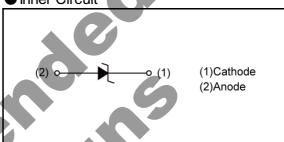
Zener Diode Data sheet

P_{D}	100	mW

Outline



Feature High reliability Small mold type Inner Circuit



Application Voltage regulation

	 Packaging Specification 	on
	Packing	Embossed Tape
	Reel Size(mm)	180
	Taping Width(mm)	8
	Basic Ordering Unit(pcs)	8000
	Taping Code	T2R
	Marking	C5
25°C)		
Symbol	Limite	Linit

Structure Silicon Epitaxial Planar

Absolute Maximum Rating (Ta

Parameter	Symbol	Limits	Unit
Power dissipation	PD	100	mW
Junction temperature	Ţj	150	°C
Storage temperature	T _{stg}	-55 ~ 150	ဇင

● Characteristic (T_a = 25°C)

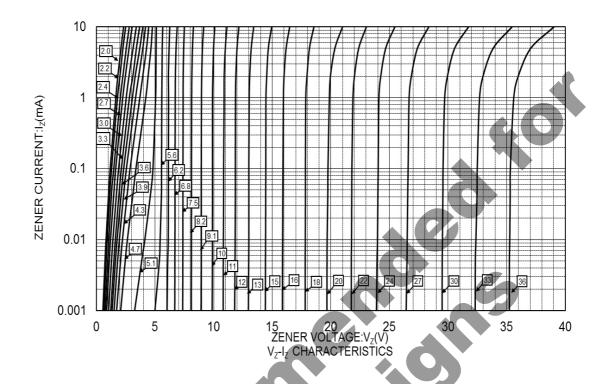
	Symbol								
P/N	Zen	er Voltage:V	_Z (V)	Dynamic Imp	edance: $Z_Z(\Omega)$	Zener Impedance: $Z_{ZK}(\Omega)$		Reverse Current:I _R (μA)	
	MIN.	MAX.	I _z (mA)	MAX.	I _z (mA)	MAX.	I _z (mA)	MAX.	V _R (V)
VDZ 2.0B	2.020	2.200	5.0	100	5.0	1000	0.5	120	0.5
VDZ 2.2B	2.220	2.410	5.0	100	5.0	1000	0.5	120	0.7
VDZ 2.4B	2.430	2.630	5.0	100	5.0	1000	0.5	120	1.0
VDZ 2.7B	2.690	2.910	5.0	110	5.0	1000	0.5	100	1.0
VDZ 3.0B	3.010	3.220	5.0	120	5.0	1000	0.5	50	1.0
VDZ 3.3B	3.320	3.530	5.0	120	5.0	1000	0.5	20	1.0
VDZ 3.6B	3.600	3.845	5.0	100	5.0	1000	1.0	10	1.0
VDZ 3.9B	3.890	4.160	5.0	100	5.0	1000	1.0	5.0	1.0
VDZ 4.3B	4.170	4.430	5.0	100	5.0	1000	1.0	5.0	1.0
VDZ 4.7B	4.550	4.750	5.0	100	5.0	800	0.5	2.0	1.0
VDZ 5.1B	4.980	5.200	5.0	80	5.0	500	0.5	2.0	1.5
VDZ 5.6B	5.490	5.730	5.0	60	5.0	200	0.5	1.0	2.5
VDZ 6.2B	6.060	6.330	5.0	60	5.0	100	0.5	1.0	3.0
VDZ 6.8B	6.650	6.930	5.0	40	5.0	60	0.5	0.5	3.5
VDZ 7.5B	7.280	7.600	5.0	30	5.0	60	0.5	0.5	4.0
VDZ 8.2B	8.020	8.360	5.0	30	5.0	60	0.5	0.5	5.0
VDZ 9.1B	8.850	9.230	5.0	30	5.0	60	0.5	0.5	6.0
VDZ 10B	9.770	10.21	5.0	30	5.0	60	0.5	0.1	7.0
VDZ 11B	10.76	11.22	5.0	30	5.0	60	0.5	0.1	8.0
VDZ 12B	11.74	12.24	5.0	30	5.0	80	0.5	0.1	9.0
VDZ 13B	12.91	13.49	5.0	37	5.0	80	0.5	0.1	10.0
VDZ 15B	14.34	14.98	5.0	42	5.0	80	0.5	0.1	11.0
VDZ 16B	15.85	16.51	5.0	50	5.0	80	0.5	0.1	12.0
VDZ 18B	17.56	18.35	2.0	65	2.0	80	0.5	0.1	13.0
VDZ 20B	19.52	20.39	2.0	85	2.0	100	0.5	0.1	15.0
VDZ 22B	21.54	22.47	2.0	100	2.0	100	0.5	0.1	17.0
VDZ 24B	23.72	24.78	2.0	120	2.0	120	0.5	0.1	19.0
VDZ 27B	26.19	27.53	2.0	150	2.0	150	0.5	0.1	21.0
VDZ 30B	29.19	30.69	2.0	200	2.0	200	0.5	0.1	23.0
VDZ 33B	32.15	33.79	2.0	250	2.0	250	0.5	0.1	25.0
VDZ 36B	35.07	36.87	2.0	300	2.0	300	0.5	0.1	27.0

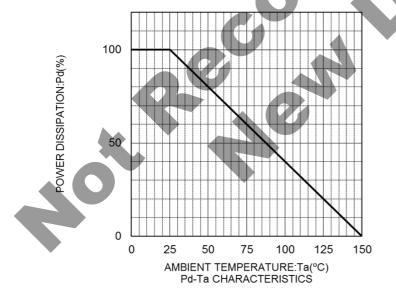
V_Z test time is 40ms.

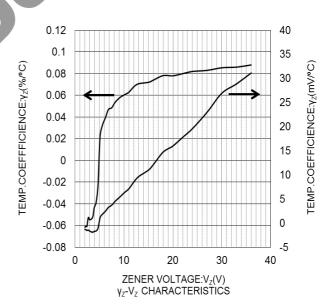
Marking

V _Z test time is 40ms.				<u> </u>
0				
■ Marking				
形名	Marking	形名	Mark	king
VDZ 2.0B	01	VDZ 9.1B	Ľ	2
VDZ 2.2B	12	VDZ 10B	0	5
VDZ 2.4B	22	VDZ 11B	1	5
VDZ 2.7B	32	VDZ 12B	2	5
VDZ 3.0B	42	VDZ 13B	35	5
VDZ 3.3B	52	VDZ 15B	4	5
VDZ 3.6B	62	VDZ 16B	55	5
VDZ 3.9B	72	VDZ 18B	65	5
VDZ 4.3B	82	VDZ 20B	7!	5
VDZ 4.7B	92	VDZ 22B	8	5
VDZ 5.1B	A2	VDZ 24B	95	5
VDZ 5.6B	C2	VDZ 27B	A:	5
VDZ 6.2B	E2	VDZ 30B	С	5
VDZ 6.8B	F2	VDZ 33B	E	5
VDZ 7.5B	H2	VDZ 36B	F	5
VDZ 8.2B	J2			

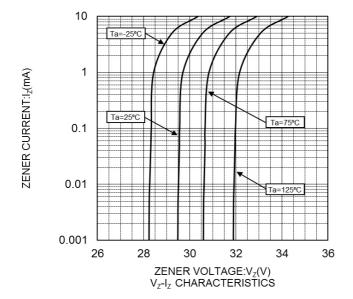
Characteristic Curves

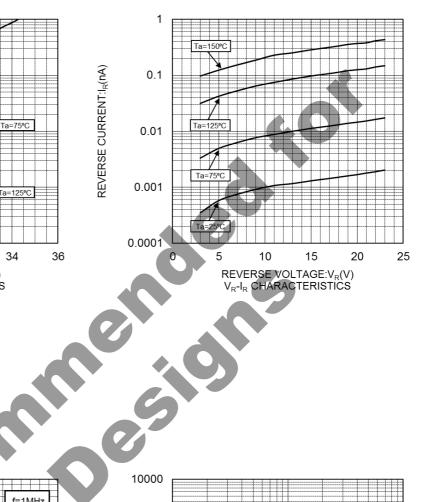


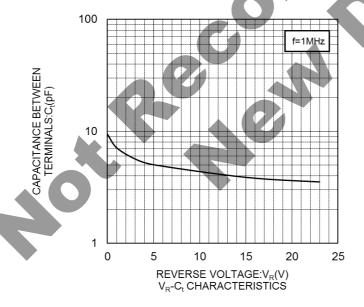


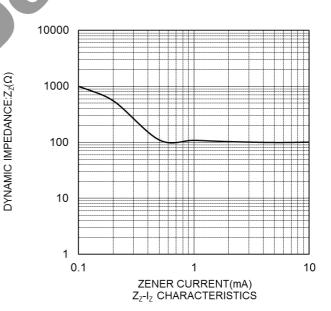


Characteristic Curves

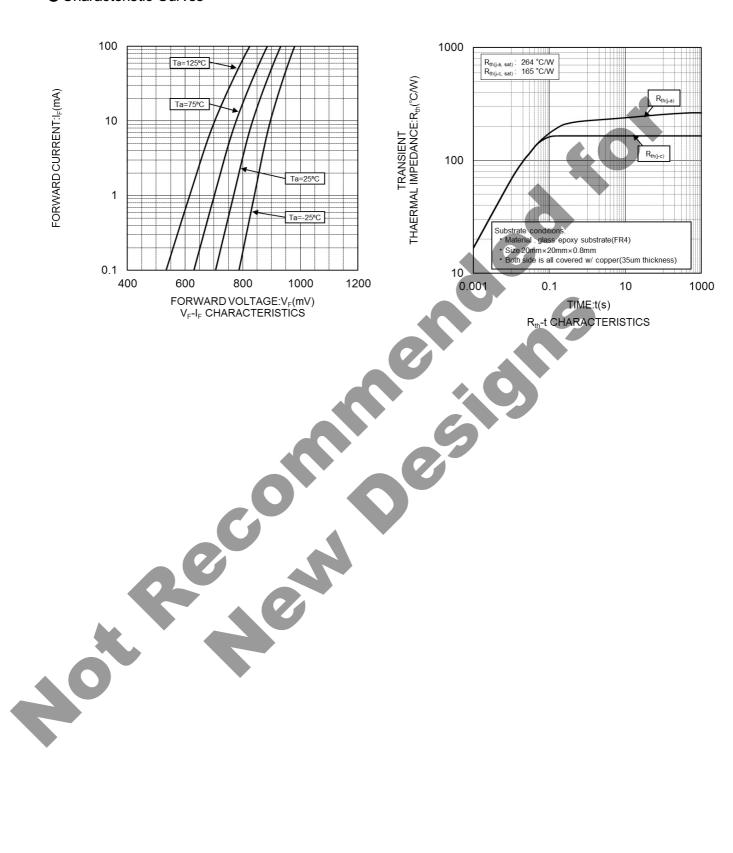




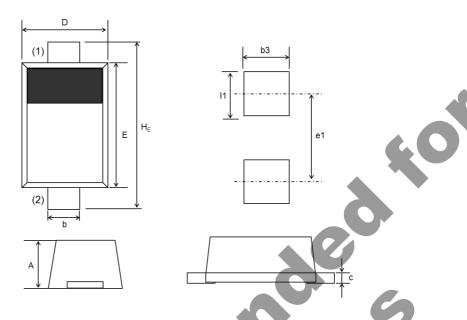




Characteristic Curves



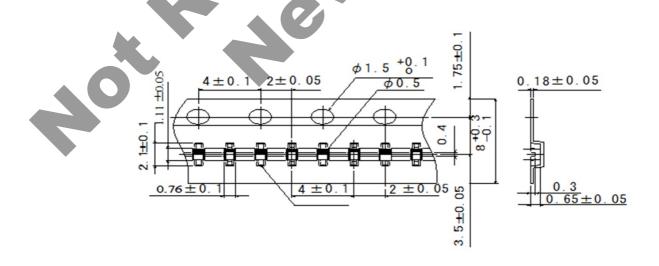
Dimension (VMD2 SOD-723 SC-104A)



504	Milimeters			Inches			
DIM	DIM Min. Av		Max.	Min.	Average	Max.	
Α	0.45	0.50	0.55	0.018	0.020	0.022	
b	0.24	0.27	0.30	0.009	0.011	0.012	
С	0.08	0.13	0,18	0.003	0.005	0.007	
D	0.55	0.60	0.65	0,022	0.024	0.026	
E	0.95	1.00	1.05	0.037	0.039	0.041	
HE	1.35	1.40	1.45	0.053	0.055	0.057	
11	-	0.50	<u> </u>	-	0.020		
b3	-	0.50	-	-	0.020	·	
e1	-	1.20	-	-	0.047	-	

- (1) The marking bar indicates the cathode.(2) The direction indicates the anode.

● Taping (Unit:mm)



Notice

Precaution on using ROHM Products

1. Our Products are designed and manufactured for application in ordinary electronic equipments (such as AV equipment, OA equipment, telecommunication equipment, home electronic appliances, amusement equipment, etc.). If you intend to use our Products in devices requiring extremely high reliability (such as medical equipment (Note 1), transport equipment, traffic equipment, aircraft/spacecraft, nuclear power controllers, fuel controllers, car equipment including car accessories, safety devices, etc.) and whose malfunction or failure may cause loss of human life, bodily injury or serious damage to property ("Specific Applications"), please consult with the ROHM sales representative in advance. Unless otherwise agreed in writing by ROHM in advance, ROHM shall not be in any way responsible or liable for any damages, expenses or losses incurred by you or third parties arising from the use of any ROHM's Products for Specific Applications.

(Note1) Medical Equipment Classification of the Specific Applications

JAPAN	USA	EU	CHINA
CLASSⅢ	CL ACCIII	CLASS II b	СГУССШ
CLASSIV	CLASSⅢ	CLASSⅢ	CLASSII

- 2. ROHM designs and manufactures its Products subject to strict quality control system. However, semiconductor products can fail or malfunction at a certain rate. Please be sure to implement, at your own responsibilities, adequate safety measures including but not limited to fail-safe design against the physical injury, damage to any property, which a failure or malfunction of our Products may cause. The following are examples of safety measures:
 - [a] Installation of protection circuits or other protective devices to improve system safety
 - [b] Installation of redundant circuits to reduce the impact of single or multiple circuit failure
- 3. Our Products are designed and manufactured for use under standard conditions and not under any special or extraordinary environments or conditions, as exemplified below. Accordingly, ROHM shall not be in any way responsible or liable for any damages, expenses or losses arising from the use of any ROHM's Products under any special or extraordinary environments or conditions. If you intend to use our Products under any special or extraordinary environments or conditions (as exemplified below), your independent verification and confirmation of product performance, reliability, etc, prior to use, must be necessary:
 - [a] Use of our Products in any types of liquid, including water, oils, chemicals, and organic solvents
 - [b] Use of our Products outdoors or in places where the Products are exposed to direct sunlight or dust
 - [c] Use of our Products in places where the Products are exposed to sea wind or corrosive gases, including Cl₂, H₂S, NH₃, SO₂, and NO₂
 - [d] Use of our Products in places where the Products are exposed to static electricity or electromagnetic waves
 - [e] Use of our Products in proximity to heat-producing components, plastic cords, or other flammable items
 - [f] Sealing or coating our Products with resin or other coating materials
 - [g] Use of our Products without cleaning residue of flux (even if you use no-clean type fluxes, cleaning residue of flux is recommended); or Washing our Products by using water or water-soluble cleaning agents for cleaning residue after soldering
 - [h] Use of the Products in places subject to dew condensation
- 4. The Products are not subject to radiation-proof design.
- 5. Please verify and confirm characteristics of the final or mounted products in using the Products.
- 6. In particular, if a transient load (a large amount of load applied in a short period of time, such as pulse. is applied, confirmation of performance characteristics after on-board mounting is strongly recommended. Avoid applying power exceeding normal rated power, exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.
- 7. De-rate Power Dissipation depending on ambient temperature. When used in sealed area, confirm that it is the use in the range that does not exceed the maximum junction temperature.
- 8. Confirm that operation temperature is within the specified range described in the product specification.
- 9. ROHM shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.

Precaution for Mounting / Circuit board design

- 1. When a highly active halogenous (chlorine, bromine, etc.) flux is used, the residue of flux may negatively affect product performance and reliability.
- 2. In principle, the reflow soldering method must be used on a surface-mount products, the flow soldering method must be used on a through hole mount products. If the flow soldering method is preferred on a surface-mount products, please consult with the ROHM representative in advance.

For details, please refer to ROHM Mounting specification

Precautions Regarding Application Examples and External Circuits

- 1. If change is made to the constant of an external circuit, please allow a sufficient margin considering variations of the characteristics of the Products and external components, including transient characteristics, as well as static characteristics.
- 2. You agree that application notes, reference designs, and associated data and information contained in this document are presented only as guidance for Products use. Therefore, in case you use such information, you are solely responsible for it and you must exercise your own independent verification and judgment in the use of such information contained in this document. ROHM shall not be in any way responsible or liable for any damages, expenses or losses incurred by you or third parties arising from the use of such information.

Precaution for Electrostatic

This Product is electrostatic sensitive product, which may be damaged due to electrostatic discharge. Please take proper caution in your manufacturing process and storage so that voltage exceeding the Products maximum rating will not be applied to Products. Please take special care under dry condition (e.g. Grounding of human body / equipment / solder iron, isolation from charged objects, setting of lonizer, friction prevention and temperature / humidity control).

Precaution for Storage / Transportation

- 1. Product performance and soldered connections may deteriorate if the Products are stored in the places where:
 - [a] the Products are exposed to sea winds or corrosive gases, including Cl2, H2S, NH3, SO2, and NO2
 - [b] the temperature or humidity exceeds those recommended by ROHM
 - [c] the Products are exposed to direct sunshine or condensation
 - [d] the Products are exposed to high Electrostatic
- 2. Even under ROHM recommended storage condition, solderability of products out of recommended storage time period may be degraded. It is strongly recommended to confirm solderability before using Products of which storage time is exceeding the recommended storage time period.
- 3. Store / transport cartons in the correct direction, which is indicated on a carton with a symbol. Otherwise bent leads may occur due to excessive stress applied when dropping of a carton.
- 4. Use Products within the specified time after opening a humidity barrier bag. Baking is required before using Products of which storage time is exceeding the recommended storage time period.

Precaution for Product Label

A two-dimensional barcode printed on ROHM Products label is for ROHM's internal use only.

Precaution for Disposition

When disposing Products please dispose them properly using an authorized industry waste company.

Precaution for Foreign Exchange and Foreign Trade act

Since concerned goods might be fallen under listed items of export control prescribed by Foreign exchange and Foreign trade act, please consult with ROHM in case of export.

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Notice-PGA-E Rev.003

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- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
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«JONHON» (основан в 1970 г.)

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«**FORSTAR**» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

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