

UMZ8.2N

(Anode common twin type)

- 1) Small mold type. (UMD3)
- 2) High reliability.

Silicon epitaxial planer

The drawing shows the mechanical specifications for the ROHM UMD3 package. The top view (left) shows a rectangular package with a central square area labeled '6A'. Dimensions include a total width of 2.0 ± 0.2 , a central square width of 0.3 ± 0.1 , and a distance from the center to the lead edge of 1.25 ± 0.1 . The lead width is 0.15 ± 0.05 . The side view (right) shows the package height with dimensions 0.7 ± 0.1 and 0.9 ± 0.1 . A note indicates that each lead has the same dimension. A dashed box in the bottom left corner is labeled 'dot (year week factory)'.

ROHM : UMD3
JEDEC : SOT-323
JEITA : SC-70
dot (year week factory)

UMD3

Technical drawing of a mechanical part, showing front, top, and side views with dimensions.

Front View Dimensions:

- Overall width: 4.0 ± 0.1
- Distance between first two holes: 2.0 ± 0.05
- Distance between last two holes: 4.0 ± 0.1
- Overall height: 8.0 ± 0.2
- Distance from top edge to center of holes: 1.75 ± 0.1
- Distance from top edge to center of bottom features: 3.5 ± 0.05
- Distance from center of bottom features to bottom edge: 2.4 ± 0.1
- Distance from center of bottom features to bottom edge (alternative): 5.5 ± 0.2
- Distance from left edge to center of first bottom feature: 2.25 ± 0.1
- Distance from center of first bottom feature to center of second bottom feature: 4.0 ± 0.1
- Bottom edge tolerance: 0

Top View Dimensions:

- Overall width: 4.0 ± 0.1
- Overall height: 8.0 ± 0.2
- Distance from top edge to center of holes: 1.75 ± 0.1
- Distance from top edge to center of bottom features: 3.5 ± 0.05
- Distance from center of bottom features to bottom edge: 2.4 ± 0.1
- Distance from center of bottom features to bottom edge (alternative): 5.5 ± 0.2
- Distance from left edge to center of first bottom feature: 2.25 ± 0.1
- Distance from center of first bottom feature to center of second bottom feature: 4.0 ± 0.1
- Bottom edge tolerance: 0

Side View Dimensions:

- Overall width: 1.25 ± 0.1
- Overall height: 2.4 ± 0.1
- Distance from top edge to center of bottom features: 0.3 ± 0.1
- Distance from center of bottom features to bottom edge: 1.75 ± 0.1

Other Dimensions:

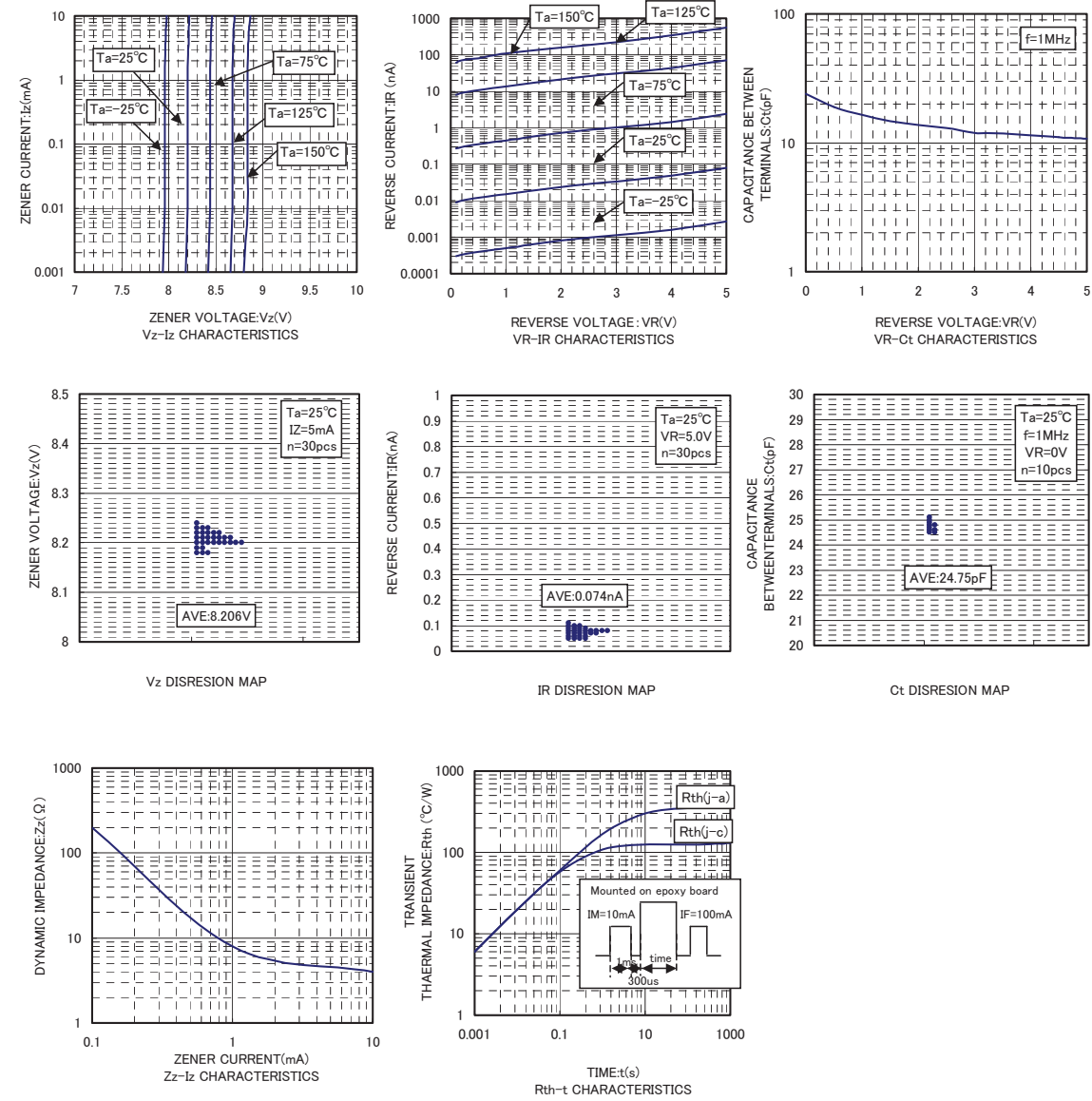
- Hole diameter: $\phi 1.55 \pm 0.05$
- Bottom feature diameter: $\phi 0.5 \pm 0.05$

Parameter	Symbol	Limits	Unit
Power dissipation (1)	P	200	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Zener voltage	V_Z	7.76	-	8.64	V	$I_Z=5mA$
Reverse current	I_R	-	-	0.50	μA	$V_R=5V$
Dynamic impedance	Z_Z	-	-	30	Ω	$I_Z=5mA$
Rising operating resistance	Z_{ZK}	-	-	60	Ω	$I_Z=0.5mA$

Diodes

●Electrical characteristic curves (Ta=25°C)



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(Note1) Medical Equipment Classification of the Specific Applications

JAPAN	USA	EU	CHINA
CLASS III	CLASS III	CLASS II b	CLASS III
CLASS IV		CLASS III	

- 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:
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 - Use of our Products in places where the Products are exposed to static electricity or electromagnetic waves
 - Use of our Products in proximity to heat-producing components, plastic cords, or other flammable items
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 - 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
 - Use of the Products in places subject to dew condensation
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- Please verify and confirm characteristics of the final or mounted products in using the Products.
- 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.
- De-rate Power Dissipation (Pd) depending on Ambient temperature (Ta). When used in sealed area, confirm the actual ambient temperature.
- Confirm that operation temperature is within the specified range described in the product specification.
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Precaution for Mounting / Circuit board design

- When a highly active halogenous (chlorine, bromine, etc.) flux is used, the residue of flux may negatively affect product performance and reliability.
- 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

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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 Ionizer, 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.

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QR code 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.

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