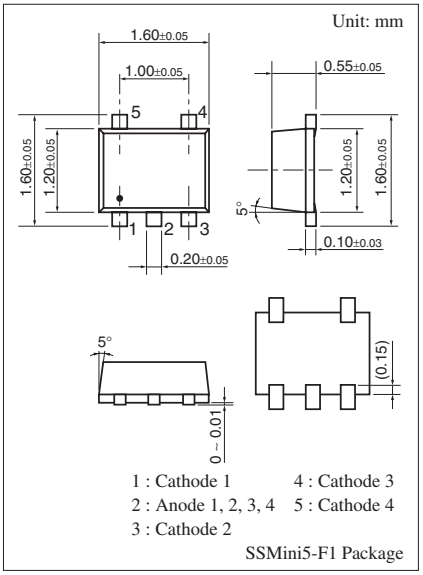
MAZMxxxH Series

Silicon planar type

For surge absorption circuit



■ Features

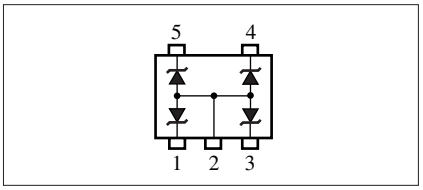
- Four elements anode-common type
- Power dissipation P_D : 150 mW

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Power dissipation *	P_D	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗: P_D = 150 mW achieved with a printed circuit board.

Internally connected circuit



■ Common Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions		Min	Typ	Max	Unit
Zener voltage *	V_Z	I_Z	Specified value	Refer to the list of the electrical characteristics within part numbers			V
Zener rise operating resistance	R_{ZK}	I_Z	Specified value				Ω
Zener operating resistance	R_Z	I_Z	Specified value				Ω
Reverse current	I_R	V_R	Specified value				μA

Note) 1. Measuring methods are based JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

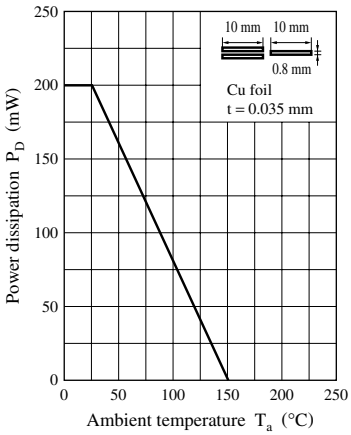
2. Electrostatic breakdown voltage is ±10 kV
   Test method: IEC1000-4-2 (C = 150 pF, R = 330 Ω, Contact discharge: 10 times)

3. ∗: The temperature must be controlled 25°C for V_Z mesurement.
   V_Z value measured at other temperature must be adjusted to V_Z (25°C)
   V_Z guaranted 20 ms after current flow.

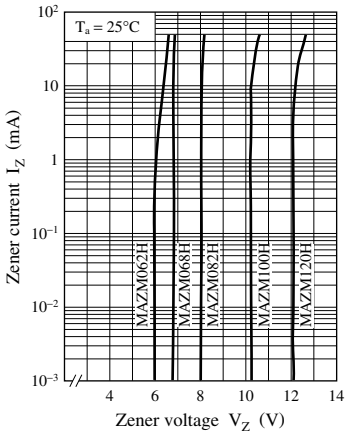
■ Electrical characteristics within part numbers $T_a = 25°C \pm 3°C$

Part number	Zener voltage V_Z (V)				Reverse current (DC) I_R (μA)		Zener operating resistance R_Z (Ω)	Zener rise operating resistance R_{ZK} (Ω)	Marking symbol
				I_Z		V_R	I_Z = 5 mA	I_Z = 0.5 mA	
	Min	Nom	Max	(mA)	Max	(V)	Max	Max	
MAZM062H	5.8	6.2	6.6	5	0.2	4	50	100	6.2Z
MAZM068H	6.4	6.8	7.2	5	0.1	4	30	60	6.8Z
MAZM082H	7.7	8.2	8.7	5	0.1	5	30	60	8.2Z
MAZM100H	9.4	10.0	10.6	5	0.05	7	30	60	10Z
MAZM120H	11.4	12.0	12.7	5	0.05	9	30	80	12Z

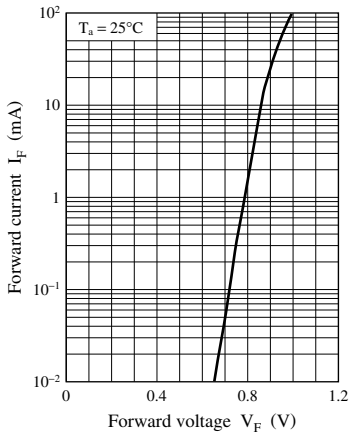
P_D — T_a



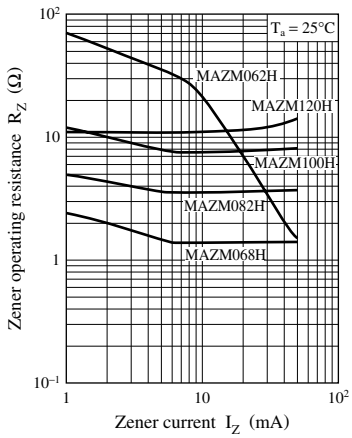
I_Z — V_Z



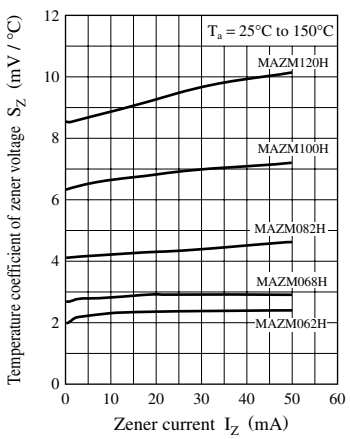
I_F — V_F



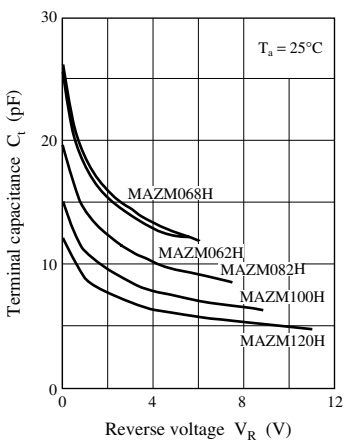
R_Z — I_Z



S_Z — I_Z



C_t — V_R



Request for your special attention and precautions in using the technical information and semiconductors described in this material

(1) An export permit needs to be obtained from the competent authorities of the Japanese Government if any of the products or technical information described in this material and controlled under the "Foreign Exchange and Foreign Trade Law" is to be exported or taken out of Japan.

(2) The technical information described in this material is limited to showing representative characteristics and applied circuits examples of the products. It neither warrants non-infringement of intellectual property right or any other rights owned by our company or a third party, nor grants any license.

(3) We are not liable for the infringement of rights owned by a third party arising out of the use of the technical information as described in this material.

(4) The products described in this material are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).
Consult our sales staff in advance for information on the following applications:
- Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
- Any applications other than the standard applications intended.

(5) The products and product specifications described in this material are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.

(6) When designing your equipment, comply with the guaranteed values, in particular those of maximum rating, the range of operating power supply voltage, and heat radiation characteristics. Otherwise, we will not be liable for any defect which may arise later in your equipment.
Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

(7) When using products for which damp-proof packing is required, observe the conditions (including shelf life and amount of time let standing of unsealed items) agreed upon when specification sheets are individually exchanged.