MAZY000 Series (MA1Z000 Series)

Silicon planar type

For stabilization of power supply

Features

- Large power dissipation: $P_D = 1$ W
- Zener voltage V_Z: 4.7 V to 51 V
- Zener voltage allowable deviation: 10%
- Auto mounting possible

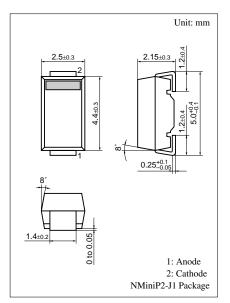
Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter	Symbol	Rating	Unit	
Repetitive peak forward current	I _{FRM}	500	mA	
Total power dissipation *1	P _{tot}	1.0	W	
Non-repetitive reverse surge power dissipation *2	P _{ZSM}	100	W	
Junction temperature	Tj	150	°C	
Storage temperature	T _{stg}	-40 to +150	°C	

Note) *1: $P_{tot} = 1.0$ W achieved with a printed circuit board(alumina)

t = 50 μ s for the product of V_Z \leq 6.8 V

*2: $t = 100 \ \mu s$, $T_i = 150^{\circ}C$



Marking Symbol

Refer to the list of the electrical characteristics within part numbers (Example) MAZY047 : 4.7

Parameter	Symbol		Conditions		Min	Тур	Max	Unit
Forward voltage	$V_{\rm F}$	$I_{\rm F} = 20$	00 mA				1.2	V
Zener voltage *2	Vz	IZ	Specified value			-4 -6 41		v
Zener operating resistance	R _Z	IZ	Specified value	fer to the li ctrical cha	Ω			
Reverse current	I _R	V _R	Specified value	hin part numbers			μΑ	
Temperature coefficient of zener voltage *3	SZ	IZ	Specified value					mV/°C

Common Electrical Characteristics $T_a = 25^{\circ}C^{*1}$

Note) 1. Rated input/output frequency: 5 MHz

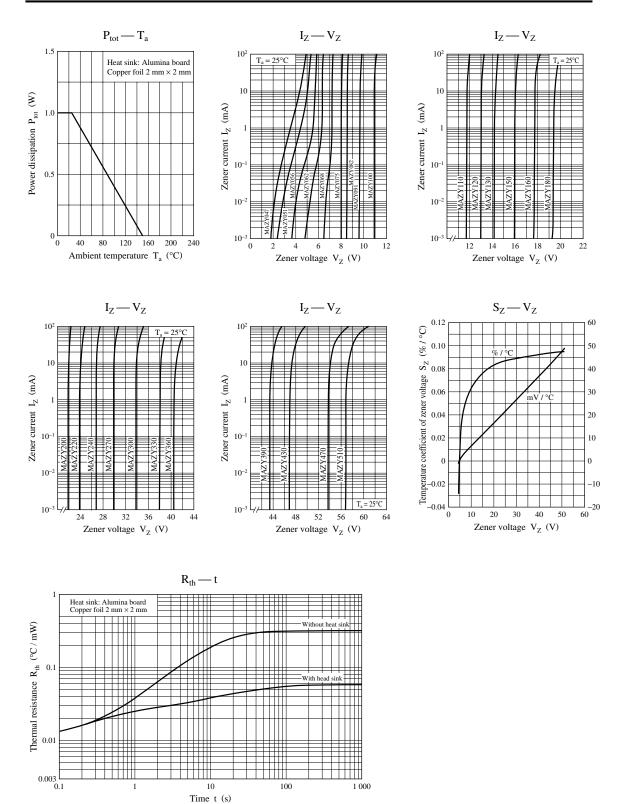
2. *1: The V_Z value is for the temperature of 25°C. In other cases, carry out the temperature compensation. *2: Guaranteed at 20 ms after power application.

*3: $T_j = 25^{\circ}C$ to $150^{\circ}C$

Note) The part number in the parenthesis shows conventional part number.

\blacksquare Electrical characteristics within part numbers $~T_a\,{=}\,25^\circ C$

Part number	Zener voltage			Reverse current		Zener operating resistance		Temperature coefficient of zener voltage		Marking	
		V _z (V)			Ι _R (μΑ)		$R_{Z}(\Omega)$		S _Z (mV/°C)		symbol
	Min	Nom	Max	l _z (mA)	Max	V _R (V)	Max	I _Z (mA)	Тур	l _Z (mA)	
MAZY047	4.4	4.7	5.0	20	40	1.0	60	20	0	20	4.7
MAZY051	4.8	5.1	5.4	20	20	1.0	50	20	0	20	5.1
MAZY056	5.2	5.6	6.0	20	20	2.0	40	20	1.5	20	5.6
MAZY062	5.6	6.2	6.8	10	20	3.0	30	10	2.4	10	6.2
MAZY068	6.2	6.8	7.4	10	10	3.0	30	10	3.1	10	6.8
MAZY075	6.8	7.5	8.3	10	10	3.0	30	10	3.8	10	7.5
MAZY082	7.4	8.2	9.1	10	10	4.0	30	10	4.5	10	8.2
MAZY091	8.2	9.1	10.1	10	10	5.0	30	10	5.4	10	9.1
MAZY100	9.0	10.0	11.0	10	10	7.0	30	10	6.3	10	10
MAZY110	9.9	11.0	12.1	10	10	7.0	30	10	7.4	10	11
MAZY120	10.8	12.0	13.2	10	10	8.0	30	10	8.4	10	12
MAZY130	11.7	13.0	14.3	10	10	9.0	30	10	9.4	10	13
MAZY150	13.5	15.0	16.5	10	10	10.0	30	10	11.4	10	15
MAZY160	14.4	16.0	17.6	10	10	11.0	30	10	12.5	10	16
MAZY180	16.2	18.0	19.9	10	10	13.0	30	10	14.5	10	18
MAZY200	18.0	20.0	22.0	10	10	14.0	30	10	16.6	10	20
MAZY220	19.8	22.0	24.2	10	10	16.0	30	10	18.6	10	22
MAZY240	21.6	24.0	26.4	10	10	17.0	30	10	20.7	10	24
MAZY270	24.3	27.0	29.7	10	10	19.0	30	10	23.8	10	27
MAZY300	27.0	30.0	33.0	10	10	21.0	30	10	26.9	10	30
MAZY330	29.7	33.0	36.3	10	10	26.4	30	10	30.0	10	33
MAZY360	32.4	36.0	39.6	5	10	28.8	30	5	33.4	5	36
MAZY390	35.1	39.0	42.9	5	10	31.8	65	5	36.3	5	39
MAZY430	38.7	43.0	47.3	5	10	35.8	65	5	41.1	5	43
MAZY470	42.3	47.0	51.7	5	10	37.6	65	5	44.9	5	47
MAZY510	45.9	51.0	56.1	5	10	40.8	65	5	48.6	5	51



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