

MAZ7xxx Series (MA7xxx Series)

Silicon planar type

For stabilization of power supply

■ Features

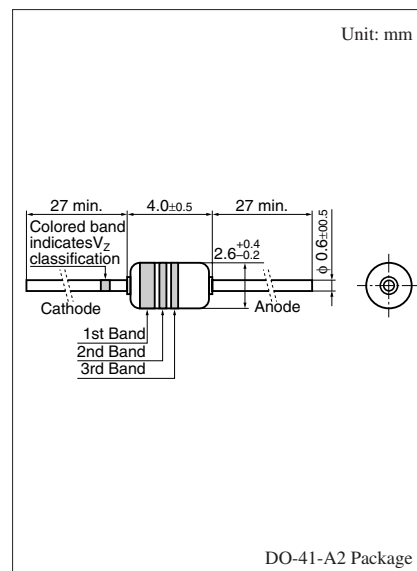
- Large power dissipation P_D : 800 mW
- Allowing to supply with the radial tapping

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

Parameter	Symbol	Rating	Unit
Repetitive peak forward current	I_{FRM}	200	mA
Power dissipation *1	P_D	800	mW
Non-repetitive reverse surge power dissipation *2	P_{ZSM}	60	W
Junction temperature	T_j	200	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +200	$^\circ\text{C}$

Note) *1: $P_D = 800$ mW achieved with a printed circuit board

*2: $t = 100$ μs , $T_j = 150^\circ\text{C}$



■ Common Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$ *1

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 200$ mA			1.0	V
Zener voltage *2	V_Z	I_Z Specified value				V
Zener operating resistance	R_Z	I_Z Specified value	Refer to the list of the electrical characteristics within part numbers			Ω
Reverse current	I_R	V_R Specified value				μA
Temperature coefficient of zener voltage *3	S_Z	I_Z Specified value				mV/ $^\circ\text{C}$
Terminal capacitance	C_t	$V_R = 0$ V, $f = 1$ MHz Specified value				pF

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

2. Absolute frequency of input and output is 5 MHz.

3. *1: The temperature must be controlled 25°C for V_Z measurement.

V_Z value measured at other temperature must be adjusted to V_Z (25°C)

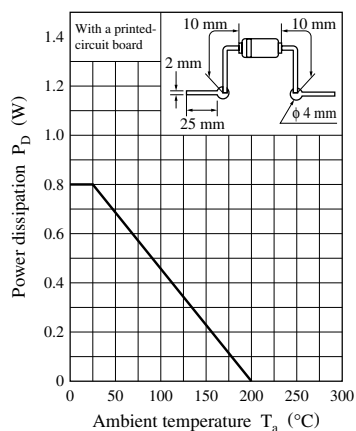
*2: V_Z guaranteed 20 ms after current flow.

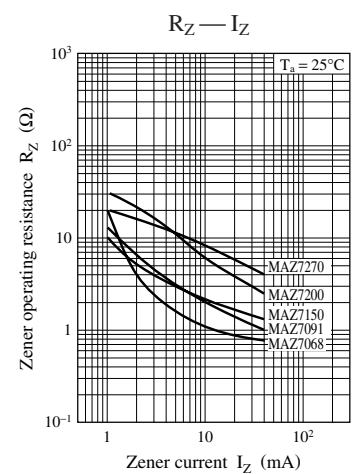
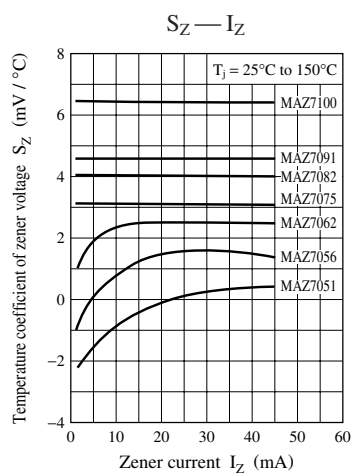
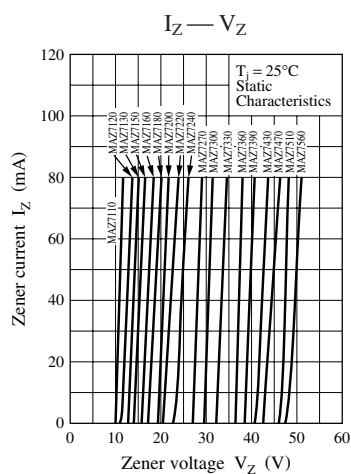
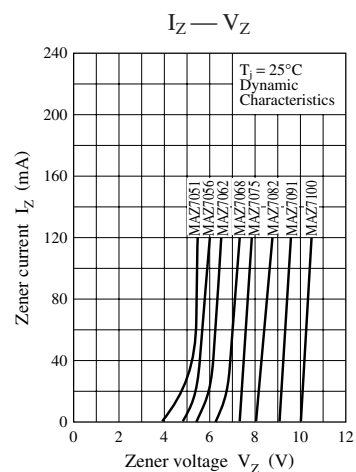
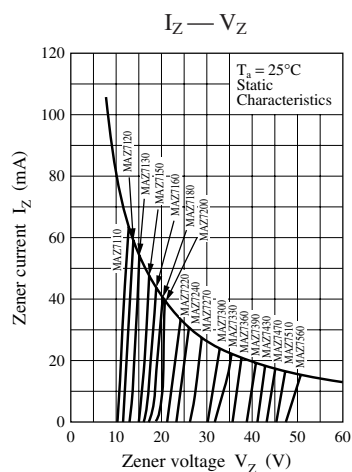
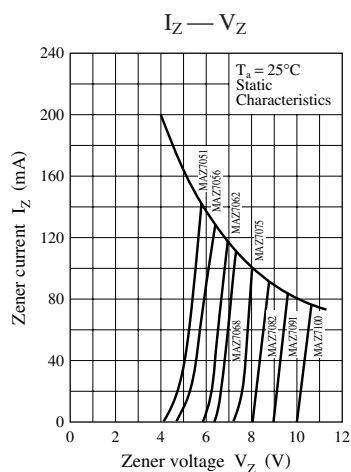
*3: $T_j = 25^\circ\text{C}$ to 150°C

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

■ Electrical Characteristics within Part Numbers $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Part number	Zener voltage V _Z (V)			Reverse current I _R (μA)		Zener operating resistance R _Z (Ω)		Temperature coefficient of zener voltage S _Z (mV/°C)		Terminal capacitance C _t (pF) (V _R = 0 V) f = 1 MHz Typ	Marking symbol (Color indication)		
	Min	Max	I _Z (mA)	Max	V _R (V)	Max	I _Z (mA)	Typ	I _Z (mA)		1st.	2nd.	3rd.
MAZ7051	4.80	5.40	40	20	1	10	40	0	40	200	Green	Brown	Brown
MAZ7056	5.20	6.00	40	20	2	8	40	1.5	40	180	Green	Blue	Blue
MAZ7062	5.80	6.60	40	20	3	6	40	2.4	40	330	Blue	Red	Red
MAZ7068	6.40	7.20	40	10	3	6	40	3.1	40	280	Blue	Gray	Gray
MAZ7075	7.00	7.90	40	10	3	5	40	3.8	40	250	Purple	Green	Green
MAZ7082	7.70	8.70	40	10	4	5	40	4.5	40	230	Gray	Red	Red
MAZ7091	8.50	9.60	40	10	5	6	40	5.4	40	220	White	Brown	Brown
MAZ7100	9.40	10.60	40	10	7	6	40	6.3	40	220	Brown	Black	—
MAZ7110	10.40	11.60	20	5	7	8	20	7.4	20	160	Brown	Brown	—
MAZ7120	11.40	12.70	20	5	8	8	20	8.4	20	160	Brown	Red	—
MAZ7130	12.40	14.10	20	5	9	10	20	9.4	20	155	Brown	Orange	—
MAZ7150	13.80	15.60	20	5	10	12	20	11.4	20	150	Brown	Green	—
MAZ7160	15.30	17.10	20	5	11	12	20	12.5	20	135	Brown	Blue	—
MAZ7180	16.80	19.10	20	5	12	15	20	14.5	20	110	Brown	Gray	—
MAZ7200	18.80	21.20	20	5	14	15	20	16.6	20	100	Red	Black	—
MAZ7220	20.80	23.30	10	5	15	20	10	18.6	10	95	Red	Red	—
MAZ7240	22.80	25.60	10	5	16	20	10	20.7	10	90	Red	Yellow	—
MAZ7270	25.10	28.90	10	2	18	25	10	23.8	10	85	Red	Purple	—
MAZ7300	28.00	32.00	10	2	20	25	10	26.9	10	80	Orange	Black	—
MAZ7330	31.00	35.00	10	2	22	30	10	30.0	10	75	Orange	Orange	—
MAZ7360	34.00	38.00	10	2	24	30	10	33.4	10	70	Orange	Blue	—
MAZ7390	37.00	41.00	10	5	26	50	10	36.3	10	65	Orange	White	—
MAZ7430	40.00	46.00	10	5	29	50	10	41.1	10	60	Yellow	Orange	—
MAZ7470	44.00	50.00	10	5	31	50	10	44.9	10	55	Yellow	Purple	—
MAZ7510	48.00	54.00	10	5	33	50	10	48.6	10	50	Green	Brown	—
MAZ7560	52.00	60.00	10	5	35	50	10	54.9	10	45	Green	Blue	—

 $P_D - T_a$ 



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