MAZDxxx Series

Silicon planar type

For constant voltage, constant current,
waveform clipper and surge absorption circuit

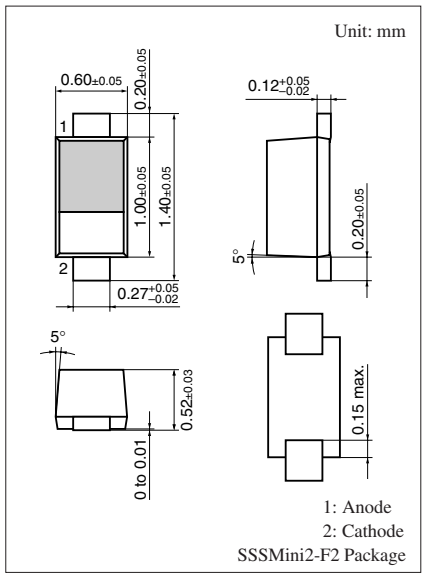
■ Features

- Low noise type

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Repetitive peak forward current	I_{FRM}	200	mA
Total power dissipation *	P_T	120	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) *: P_{tot} = 100 mW achieved with a printed circuit board



Marking Symbol

Refer to the list of the electrical characteristics within part numbers

(Example) MAZD062: DF

■ Common Electrical Characteristics $T_a = 25°C \pm 3°C$ *1

Parameter	Symbol	Conditions		Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 10 mA			0.9	1.0	V
Zener voltage *2	V_Z	I_Z	Specified value	Refer to the list of the electrical characteristics within part numbers			V
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 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 mesurement.

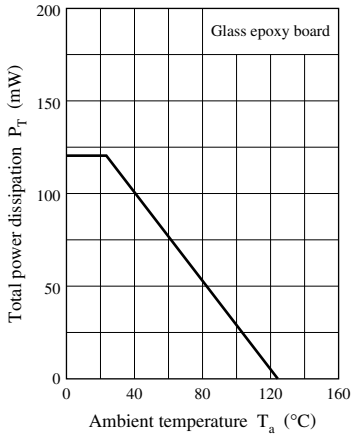
V_Z value measured at other temperature must be adjusted to V_Z (25°C)

∗2: V_Z guaranteed 20 ms after current flow.

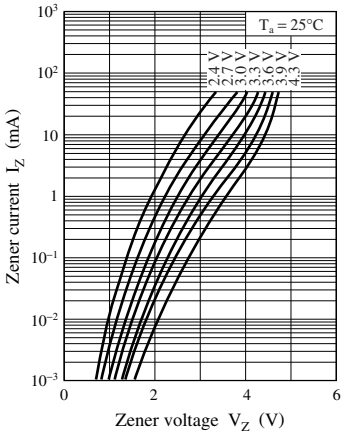
■ Electrical Characteristics within Part Numbers $T_a = 25°C \pm 3°C$

Part number	Zener voltage V_Z (V)				Reverse current I_R (μA)		Zener operating resistance R_Z (Ω)		Marking symbol
	Min	Nom	Max	I_Z (mA)	Max	V_R (V)	Max	I_Z (mA)	
MAZD024	2.28	2.40	2.60	5	120	1.0	100	5	1F
MAZD027	2.50	2.70	2.90	5	120	1.0	110	5	2F
MAZD030	2.80	3.00	3.20	5	50	1.0	120	5	3F
MAZD033	3.10	3.30	3.50	5	20	1.0	130	5	4F
MAZD036	3.40	3.60	3.80	5	10	1.0	130	5	5F
MAZD039	3.70	3.90	4.10	5	10	1.0	130	5	6F
MAZD043	4.00	4.30	4.60	5	10	1.0	130	5	AF
MAZD047	4.40	4.70	5.00	5	2.0	1.0	80	5	H
MAZD051	4.80	5.10	5.40	5	1.0	2.0	60	5	BF
MAZD056	5.30	5.60	6.00	5	0.5	2.5	40	5	CF
MAZD062	5.80	6.20	6.60	5	0.2	4.0	30	5	DF
MAZD068	6.40	6.80	7.20	5	0.1	4.0	20	5	W
MAZD075	7.00	7.50	7.90	5	0.1	5.0	20	5	T
MAZD082	7.70	8.20	8.70	5	0.1	5.0	20	5	EF
MAZD091	8.50	9.10	9.60	5	0.1	6.0	20	5	FF
MAZD100	9.40	10.00	10.60	5	0.05	7.0	30	5	GF
MAZD110	10.40	11.00	11.60	5	0.05	8.0	30	5	JF
MAZD120	11.40	12.00	12.70	5	0.05	9.0	30	5	KF
MAZD130	12.40	13.00	14.10	5	0.05	10.0	35	5	LF
MAZD150	13.90	15.00	15.60	5	0.05	11.0	40	5	MF
MAZD160	15.30	16.00	17.10	5	0.05	12.0	50	5	NF
MAZD180	16.90	18.00	19.10	5	0.05	13.0	60	5	PF
MAZD200	18.80	20.00	21.20	5	0.05	15.0	80	5	RF
MAZD220	20.80	22.00	23.30	5	0.05	17.0	80	5	SF
MAZD240	22.80	24.00	25.60	5	0.05	19.0	100	5	UF
MAZD270	25.10	27.00	28.90	2	0.05	21.0	120	2	VF
MAZD300	28.00	30.00	32.00	2	0.05	23.0	160	2	XF
MAZD330	31.00	33.00	35.00	2	0.05	25.0	200	2	YF
MAZD360	34.00	36.00	38.00	2	0.05	27.0	250	2	ZF
MAZD390	37.00	39.00	41.00	2	0.05	30.0	300	2	7F

P_T — T_a



I_Z — V_Z



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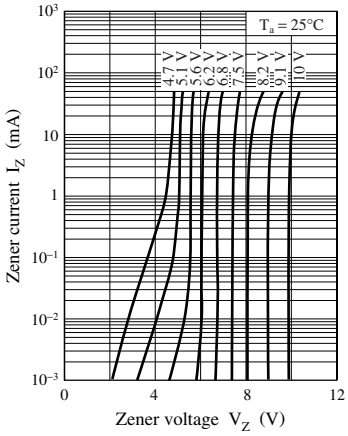

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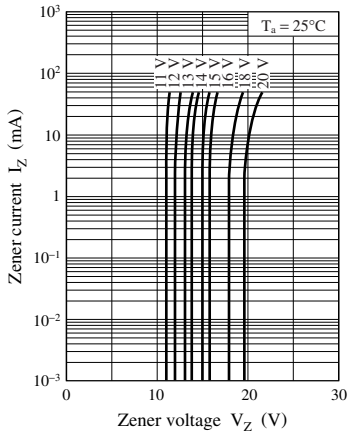
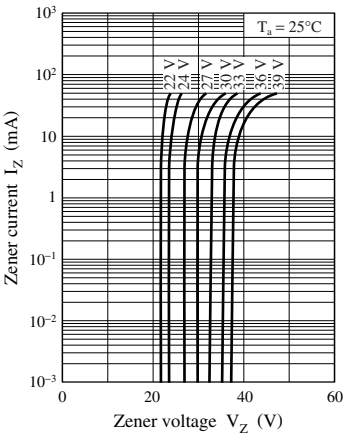


I_Z — V_Z



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