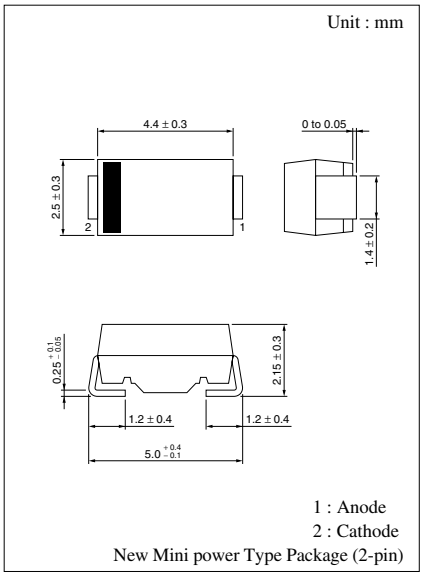
MAZX000 Series

Silicon planar type

For stabilization of power supply

■ Features

- Large power dissipation: P_D = 1.0 W
- High zener voltage V_Z: 200 V to 330 V
- Allowing automatic mounting



■ Absolute Maximum Ratings T_a = 25°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	T_j	150	°C
Storage temperature	T_{stg}	−40 to +150	°C

Note) *1 : P_{tot} = 1.0 W achieved with a printed-circuit board (alumina)
*2 : t = 100 µs, T_j = 150°C

Marking Symbol

Refer to the list of the electrical characteristics within part numbers

(Example) MAZX200 : 200

■ Common Electrical Characteristics T_a = 25°C*1

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 200 mA			1.2	V
Zener voltage*2	V_Z	I_Z ..... Specified value	Refer to the list of the electrical characteristics within part numbers			V
Operating resistance	R_Z	I_Z ..... Specified value				Ω
Reverse current	I_R	V_R ..... Specified value				µA
Temperature coefficient of zener voltage*3	S_Z	I_Z ..... Specified value				mV/°C

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°C to 150°C

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

Part Number	Zener voltage				Reverse current		Operating resistance		Temperature coefficient of zener voltage		Marking Symbol
	V_Z (V)				I_R		R_Z		S_Z		
	Min (V)	Nom (V)	Max (V)	I_Z (mA)	Max (μA)	V_R (V)	Max (Ω)	I_Z (mA)	Typ (mV/°C)	I_Z (mA)	
MAZX200	180	200	220	1.5	10	160	600	1.5	170	1.5	200
MAZX220	198	220	242	0.5	10	176	10,000	0.5	200	0.5	220
MAZX240	216	240	264	0.5	10	192	10,000	0.5	215	0.5	240
MAZX270	243	270	297	0.5	10	216	5,000	0.5	243	0.5	270
MAZX300	270	300	330	0.5	10	240	5,000	0.5	270	0.5	300
MAZX330	297	330	363	0.5	10	264	5,000	0.5	296	0.5	330