

# MAZL120D

## Silicon planer type

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

### ■ Features

- Mini type package (5-pin)
- Four anode-common element wiring of MA8120

### ■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit
Average forward current	$I_{F(AV)}$	100 * <sup>1</sup>	mA
Instantaneous forward current	$I_{FRM}$	200 * <sup>1</sup>	mA
Total power dissipation	$P_{tot}$ * <sup>2</sup>	200 * <sup>1</sup>	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	- 55 to + 150	°C

\*<sup>1</sup> Working value in a single piece

\*<sup>2</sup> With a printed-circuit board

### ■ Electrical Characteristics (Ta= 25°C)\*<sup>1</sup>

Parameter	Symbol	Condition	min	typ	max	Unit
Forward voltage	$V_F$	$I_F=10mA$		0.9	1.0	V
Zener voltage	$V_Z$ * <sup>2</sup>	$I_Z= 5mA$	11.40	12.00	12.70	V
Operating resistance	$R_{ZK}$	$I_Z= 0.5mA$			80	$\Omega$
	$R_Z$	$I_Z= 5mA$			30	$\Omega$
Reverse current	$I_R$	$V_R= 9V$			0.05	$\mu A$
Temperature coefficient of zener voltage	$S_Z$ * <sup>3</sup>	$I_Z= 5mA$		8.4		mV/°C
Terminal capacitance	$C_t$	$V_R= 0V, f=1MHz$			25	pF

Note 1. Test method : Depend on JIS C7031 testing

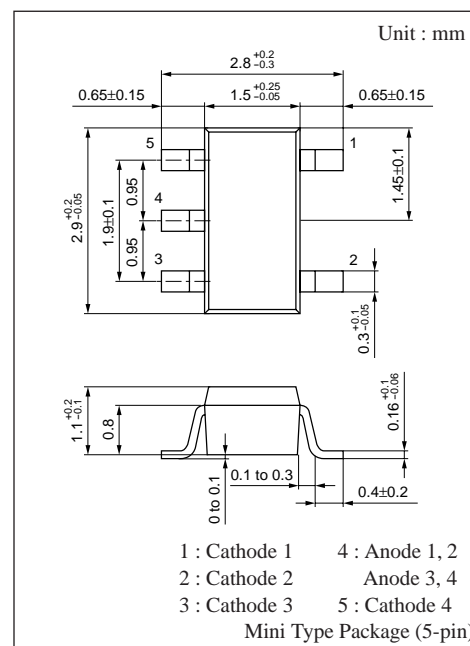
2. Rated input/output frequency : 5MHz

3. \*<sup>1</sup> : The  $V_Z$  value is for the temperature of 25°C. In other cases, carry out the temperature compensation.

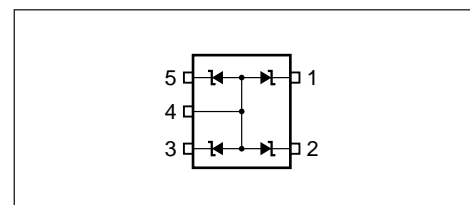
\*<sup>2</sup> : Guaranteed at 20ms after power application

\*<sup>3</sup> :  $T_j= 25$  to 150°C

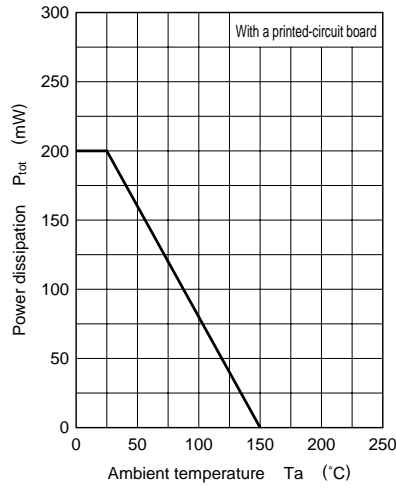
### ■ Marking



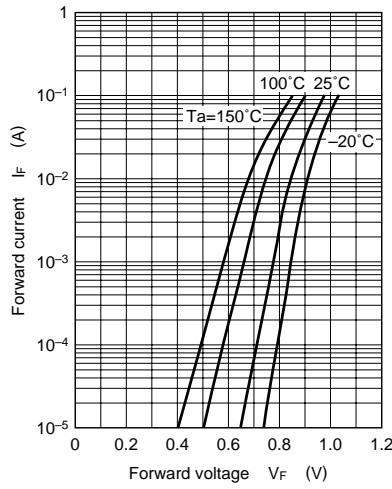
### ■ Internal Connection



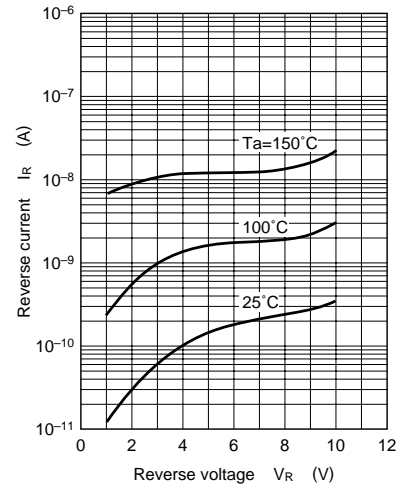
$P_{tot} - T_a$



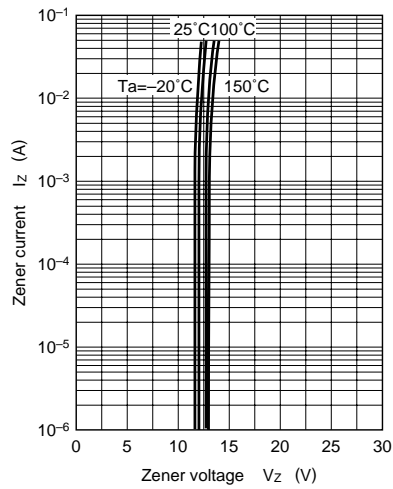
$I_F - V_F$



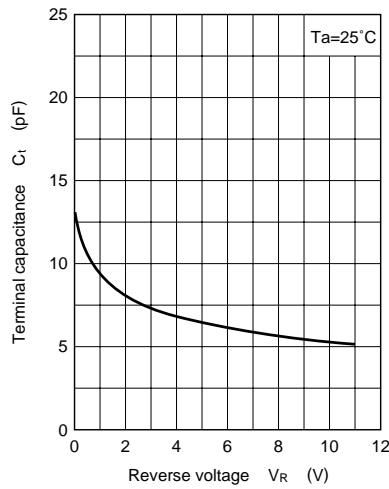
$I_R - V_R$



$I_Z - V_Z$



$C_t - V_R$



$R_Z - I_Z$

