

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 * ¹	mA
Instantaneous forward current	I_{FRM}	200 * ¹	mA
Total power dissipation	P_{tot} * ²	200 * ¹	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	- 55 to + 150	°C

*¹ Working value in a single piece

*² With a printed-circuit board

■ Electrical Characteristics (Ta= 25°C)*¹

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

Note 1. Test method : Depend on JIS C7031 testing

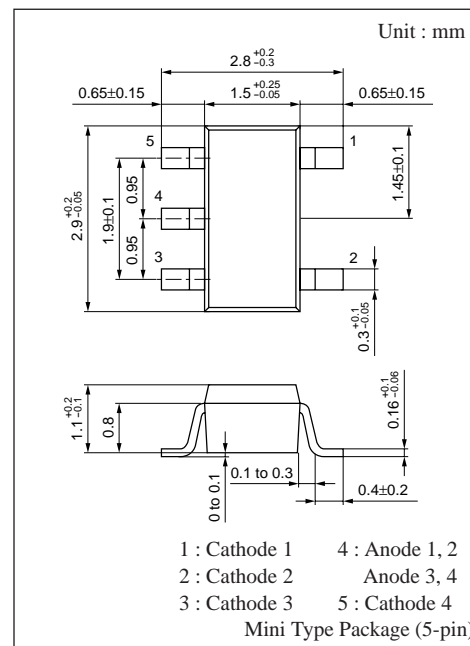
2. Rated input/output frequency : 5MHz

3. *¹ : The V_Z value is for the temperature of 25°C. In other cases, carry out the temperature compensation.

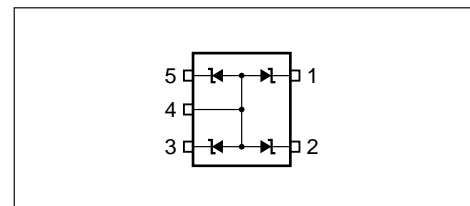
*² : Guaranteed at 20ms after power application

*³ : $T_j= 25$ to 150°C

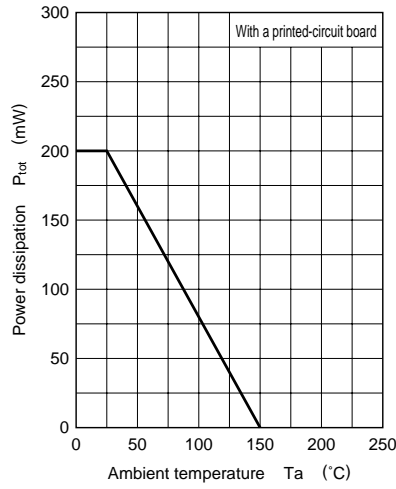
■ Marking



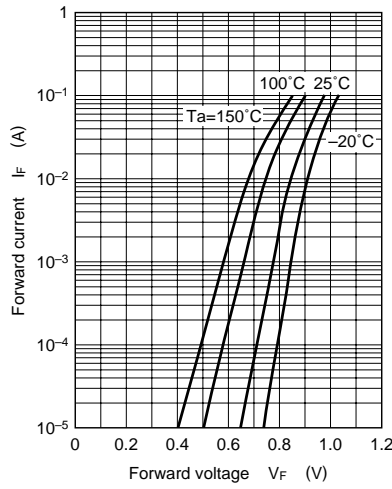
■ Internal Connection



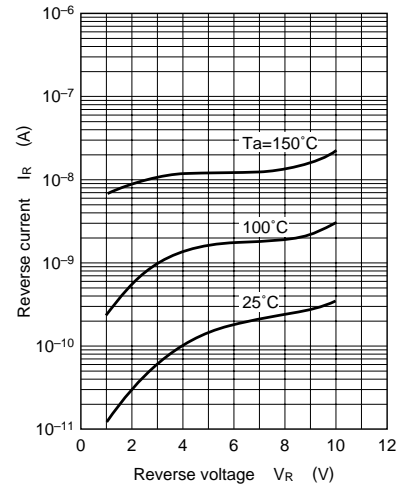
$P_{tot} - T_a$



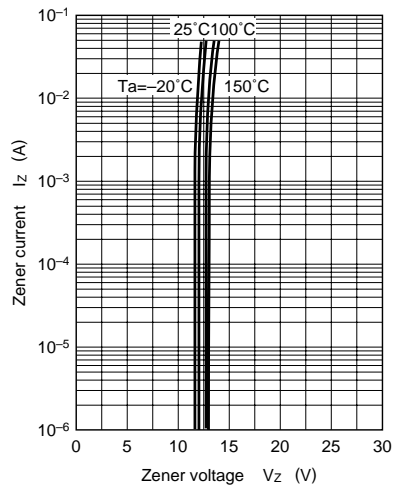
$I_F - V_F$



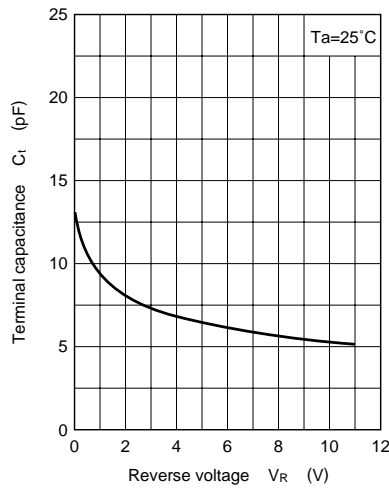
$I_R - V_R$



$I_Z - V_Z$



$C_t - V_R$



$R_Z - I_Z$

