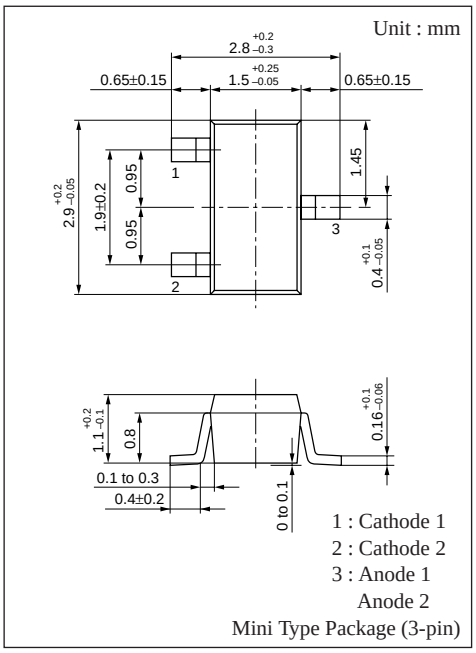
MA3100WA

Silicon planer type

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

■ Features

- Mini type package (3-pin)
- Two anode-common wiring of MA3100

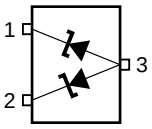


■ Absolute Maximum Ratings (Ta= 25˚C)

Parameter	Symbol	Rating	Unit
Average forward current	$I_{F(AV)}$	100 *1	mA
Instanious forward current	I_{FRM}	200 *1	mA
Total power dissipation	P_{tot}*2	100 *1	mW
Non-repetitive reverse surge power dissipation	P_{ZSM}*3	15	W
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
*3 t=100µ s, T_j=150˚C

■ Internal Connection



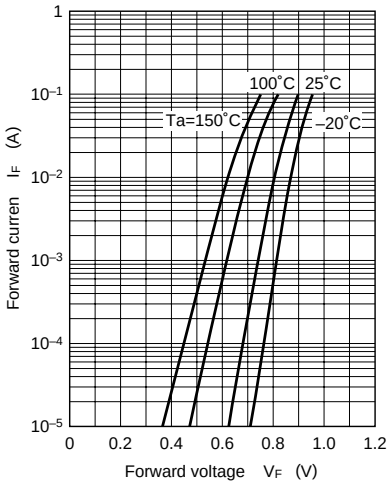
■ Electrical Characteristics (Ta= 25˚C)*1

Parameter	Symbol	Condition	min	typ	max	Unit
Forward voltage	V_F	I_F=10mA		0.8	0.9	V
Zener voltage	V_Z*2	I_Z= 5mA	9.40		10.60	V
Operating resistance	R_{ZK}	I_Z= 0.5mA			130	Ω
	R_Z	I_Z= 5mA			20	Ω
Reverse current	I_{R1}	V_R= 7V			0.2	µA
	I_{R2}	V_R= 8.9V			60	µA
Temperature coefficient of zener voltage	S_Z*3	I_Z= 5mA	4.5	6.4	8.0	mV/˚C

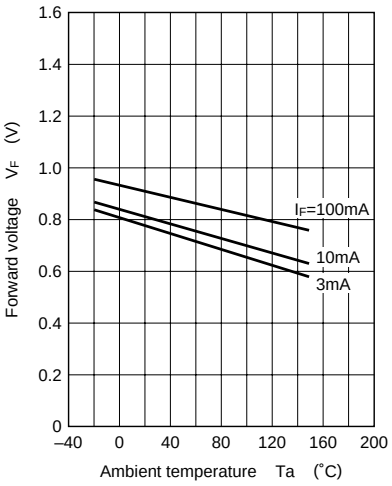
Note 1. Rated input/output frequency : 5MHz
2. * 1 : The V_Z value is for the temperature of 25˚C. In other cases, carry out the temperature compensation.
* 2 : Guaranteeed at 20ms after power application
* 3 : T_j= 25 to 150˚C

■ Marking

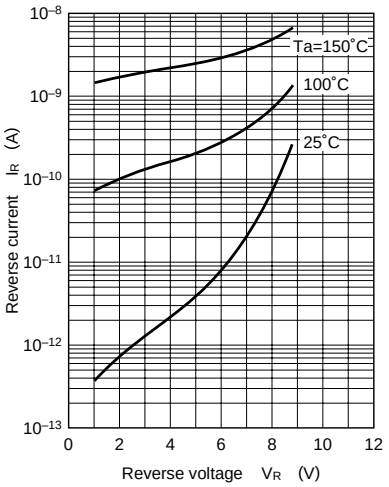
$I_F - V_F$



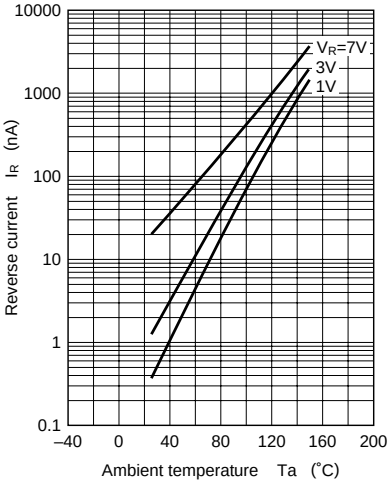
$V_F - Ta$



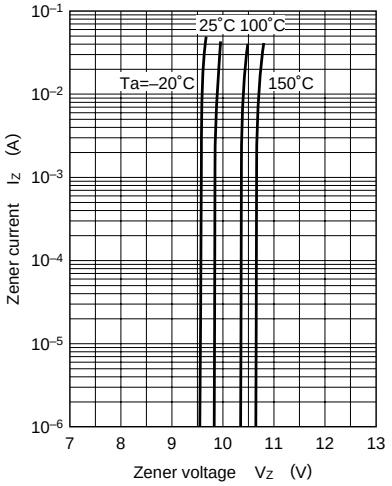
$I_R - V_R$



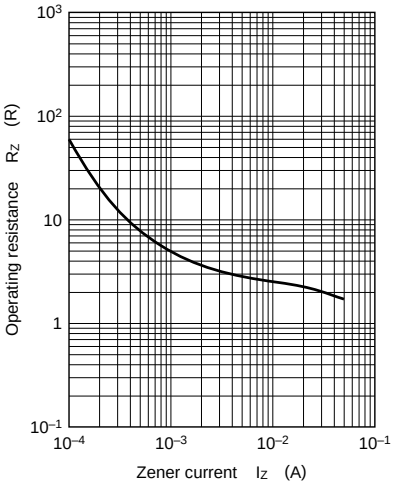
$I_R - Ta$



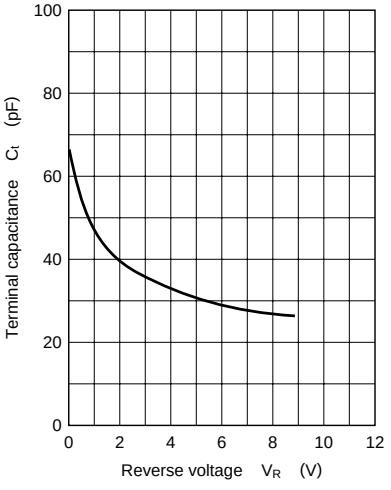
$I_Z - V_Z$



$R_Z - I_Z$



$C_t - V_R$



$P_{ZSM} - t_W$