

MA3047W

Silicon planer type

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

■ Features

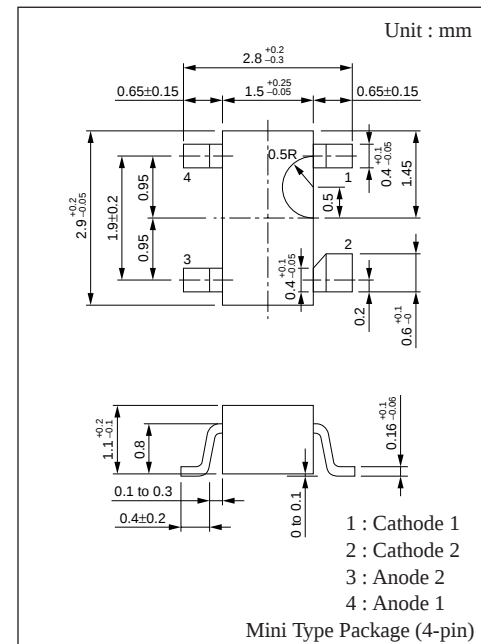
- Mini type package (4-pin)
- Two-element wiring in parallel of MA3047

■ Absolute Maximum Ratings (Ta= 25°C)

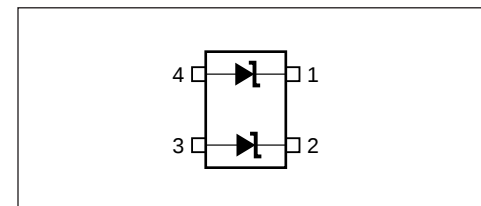
Parameter	Symbol	Rating	Unit
Average forward current	Single	$I_{F(AV)}$	100
	Double	$I_{F(AV)}$	75
Instantious forward current	Single	I_{FRM}	200
	Double	I_{FRM}	150
Total power dissipation	Single	P_{tot}^{*1}	200
	Double	P_{tot}^{*1}	150
Non-repetitive reverse surge power dissipation		P_{ZSM}^{*2}	15
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	- 55 to + 150	°C

*1 With a printed-circuit board

*2 $t=100\mu s$, $T_j=150^\circ C$



■ 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}	$I_Z= 5mA$	4.4	4.7	5.0	V
Operating resistance	R_Z	$I_Z= 5mA$		50	80	Ω
Reverse current	I_R	$V_R= 1V$			3	μA
Temperature coefficient of zener voltage	S_Z^{*3}	$I_Z= 5mA$	- 3.5	-1.4	0.2	$mV/^\circ C$

Note 1. Rated input/output frequency : 5MHz

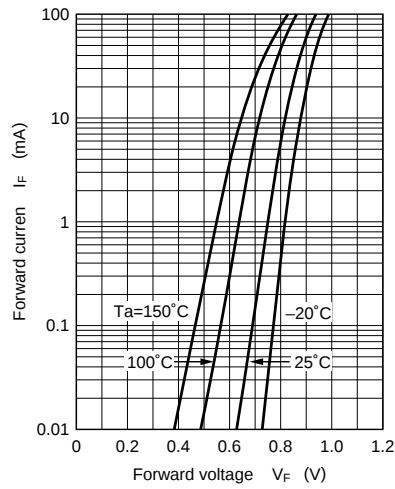
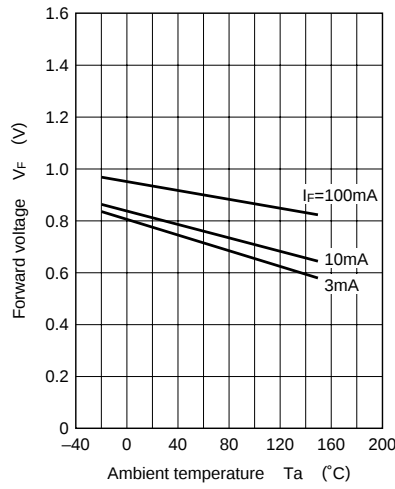
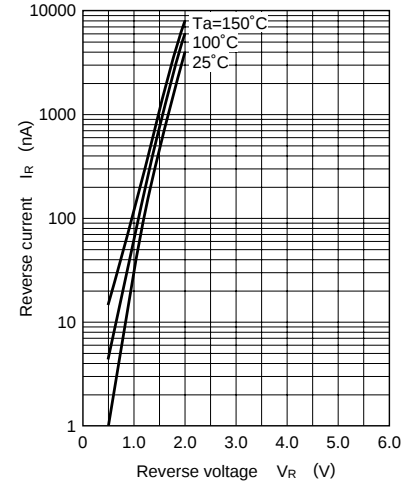
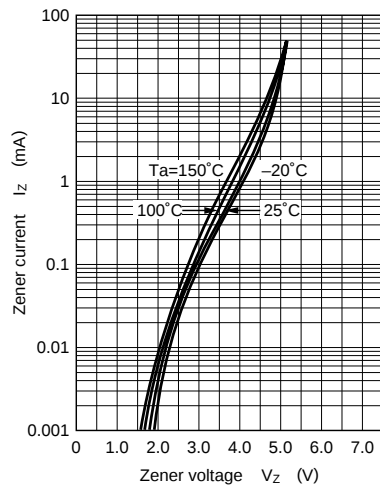
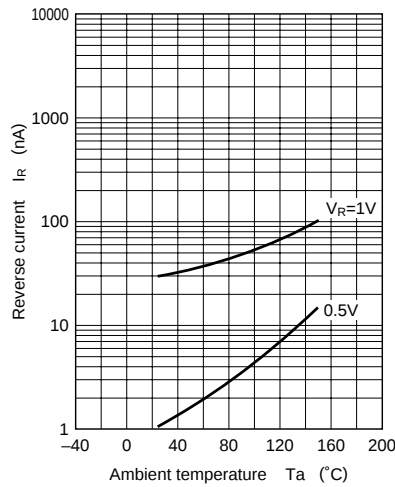
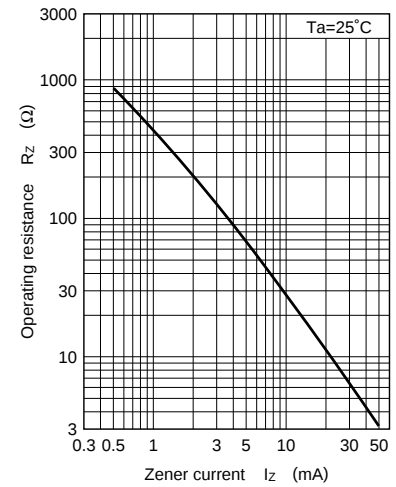
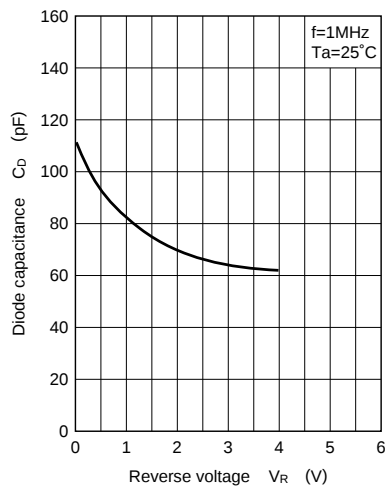
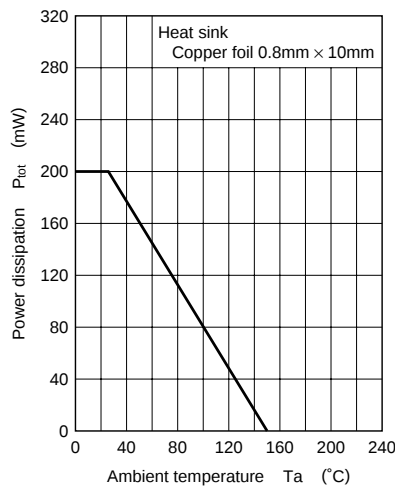
2. *1 : The V_Z value is for the temperature of 25°C. In other cases, carry out the temperature compensation.

*2 : Guaranteed at 20ms after power application

*3 : $T_j= 25$ to $125^\circ C$

■ Marking



$I_F - V_F$  $V_F - T_a$  $I_R - V_R$  $I_Z - V_Z$  $I_R - T_a$  $R_Z - I_Z$  $C_D - V_R$  $P_{\text{tot}} - T_a$  $P_{\text{ZSM}} - t_w$ 