

MA3075WA

Silicon planer type

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

■ Features

- Mini type package (3-pin)
- Two anode-common wiring of MA3075

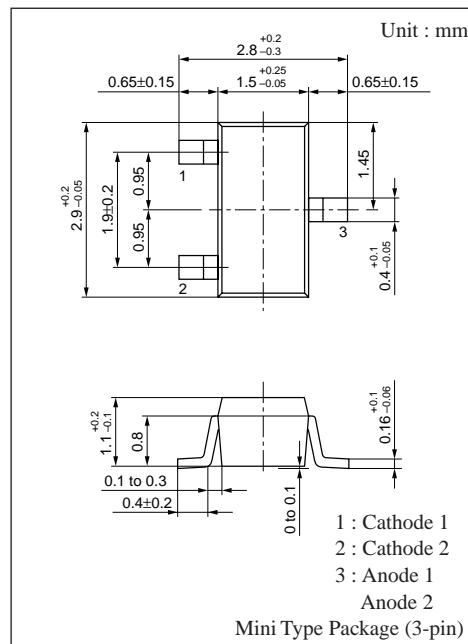
■ Absolute Maximum Ratings (Ta= 25°C)

| 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 | 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 |

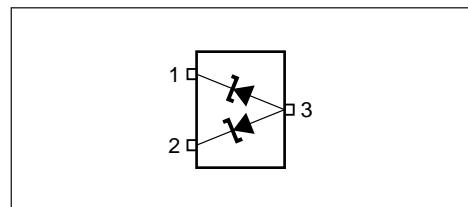
*¹ Working value in a single piece

*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 | 7.0 | 7.5 | 7.9 | V |
| Operating resistance | R _{ZK} | I _Z = 0.5mA | | | 120 | Ω |
| | R _Z | I _Z = 5mA | | 6 | 15 | Ω |
| Reverse current | I _{R1} | V _R = 5V | | | 1 | μA |
| | I _{R2} | V _R = 6.5V | | | 60 | μA |
| Temperature coefficient of zener voltage | S _Z * ³ | I _Z = 5mA | 2.5 | 4.0 | 5.3 | mV/°C |

Note 1. Rated input/output frequency : 5MHz

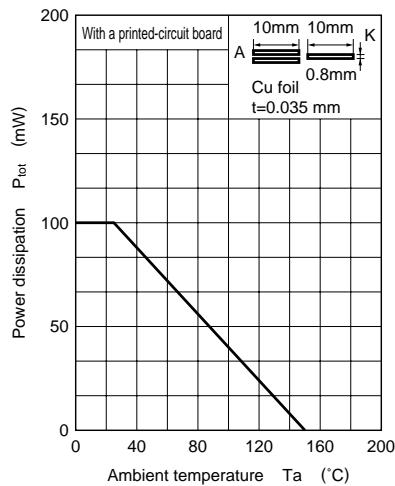
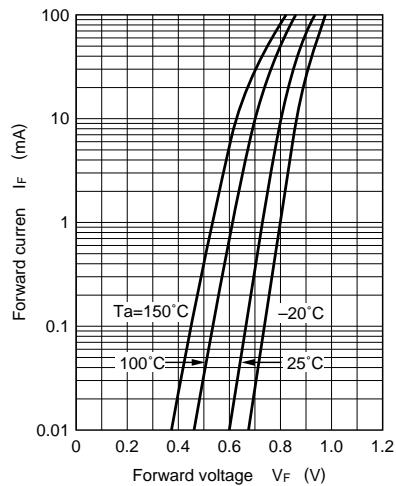
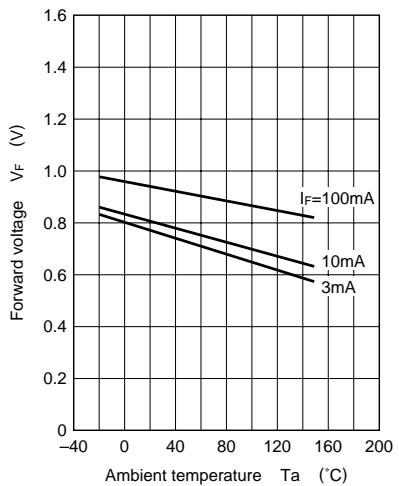
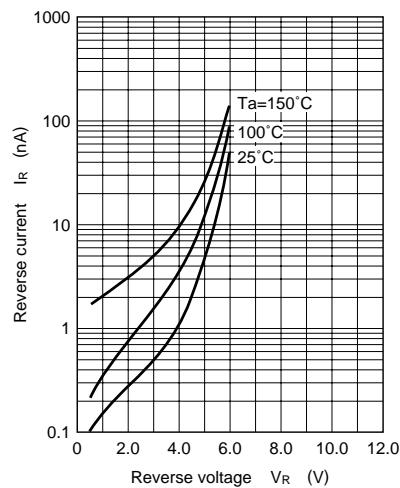
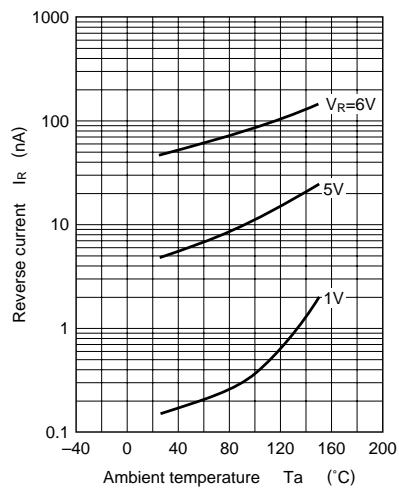
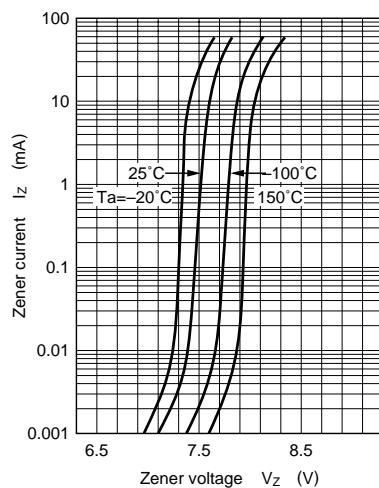
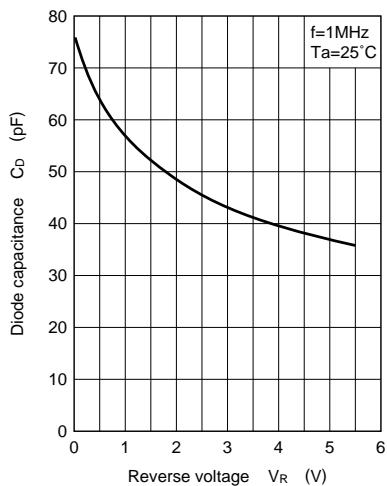
2. *¹ : The V_Z value is for the temperature of 25°C. In other cases, carry out the temperature compensation.

*² : Guaranteed at 20ms after power application

*³ : T_j= 25 to 150°C

■ Marking



$P_{tot} - Ta$  $I_F - V_F$  $V_F - Ta$  $I_R - V_R$  $I_R - Ta$  $I_Z - V_Z$  $C_D - V_R$  $R_Z - I_Z$ 