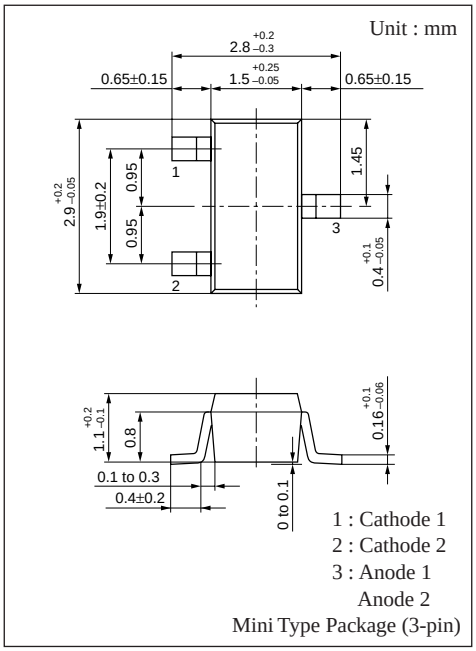
# MA3130WA

## Silicon planer type

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

### ■ Features

- Mini type package (3-pin)
- Two anode-common wiring of MA3130

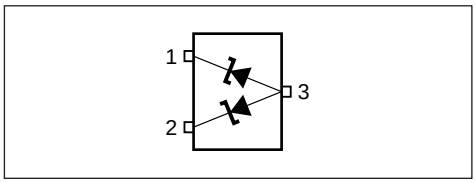



### ■ Absolute Maximum Ratings (Ta= 25˚C)

| 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

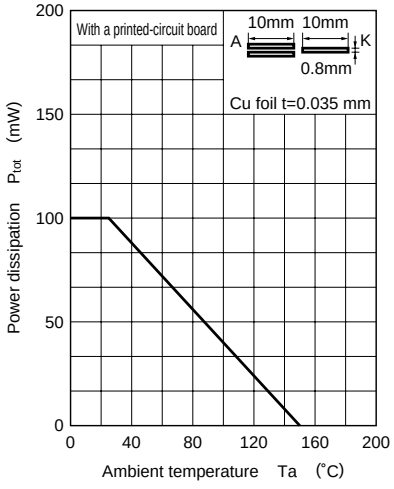



### ■ Electrical Characteristics (Ta= 25˚C)*1

| 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 | 12.40 | | 14.10 | V |
| Operating resistance | $R_{ZK}$ | $I_Z$= 0.5mA | | | 170 | Ω |
| | $R_Z$ | $I_Z$= 5mA | | | 30 | Ω |
| Reverse current | $I_{R1}$ | $V_R$= 9.0V | | | 0.1 | µA |
| | $I_{R2}$ | $V_R$= 11.9V | | | 60 | µA |
| Temperature coefficient of zener voltage | $S_Z$*3 | $I_Z$= 5mA | 7.0 | 9.4 | 11.0 | 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

$P_{tot}$ – Ta




### ■ Marking