

# MA727

## Silicon epitaxial planer type

For super high-speed switching circuit

For small current rectification

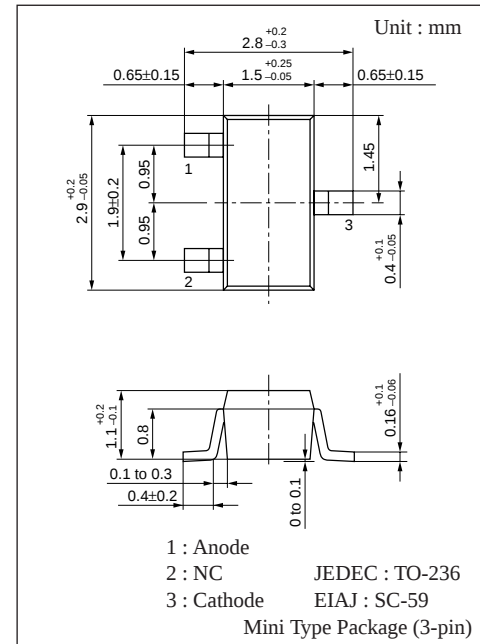
### ■ Features

- Sealed in the Mini type mold. High voltage withstand type ( $V_R = 50V$ )
- $I_{F(AV)} = 200mA$  rectification possible
- Superior in reliability

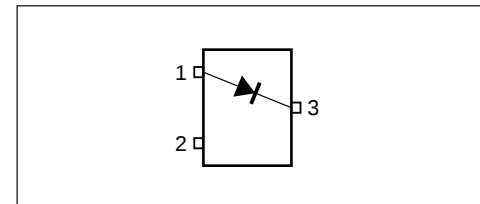
### ■ Absolute Maximum Ratings ( $T_a = 25^\circ C$ )

| Parameter                                 | Symbol      | Rating        | Unit       |
|-------------------------------------------|-------------|---------------|------------|
| Reverse voltage (DC)                      | $V_R$       | 50            | V          |
| Repetitive peak reverse voltage           | $V_{RRM}$   | 50            | V          |
| Peak forward current                      | $I_{FM}$    | 300           | mA         |
| Average forward current                   | $I_{F(AV)}$ | 200           | mA         |
| Non-repetitive peak forward surge current | $I_{FSM}^*$ | 1             | A          |
| Junction temperature                      | $T_j$       | 150           | $^\circ C$ |
| Storage temperature                       | $T_{stg}$   | - 55 to + 150 | $^\circ C$ |

\* 50Hz sine wave, one-cycle wave, high value (non-repetitive)



### ■ Internal Connection



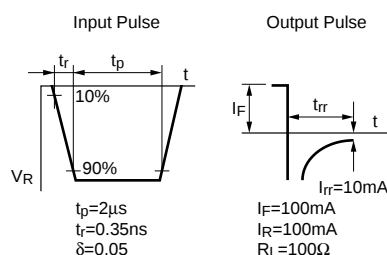
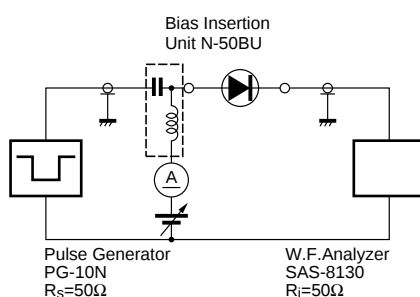
### ■ Electrical Characteristics ( $T_a = 25^\circ C$ )

| Parameter             | Symbol     | Condition                                           | min | typ | max  | Unit    |
|-----------------------|------------|-----------------------------------------------------|-----|-----|------|---------|
| Reverse current (DC)  | $I_R$      | $V_R = 50V$                                         |     |     | 200  | $\mu A$ |
| Forward voltage (DC)  | $V_{F1}$   | $I_F = 30mA$                                        |     |     | 0.36 | V       |
|                       | $V_{F2}$   | $I_F = 200mA$                                       |     |     | 0.55 | V       |
| Terminal capacitance  | $C_t$      | $V_R = 0V, f=1MHz$                                  |     | 30  |      | pF      |
| Reverse recovery time | $t_{rr}^*$ | $I_F = I_R = 10mA$<br>$I_R = 10mA, R_L = 100\Omega$ |     | 3.0 |      | ns      |

Note 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on charge of a human body and leakage from the equipment used.

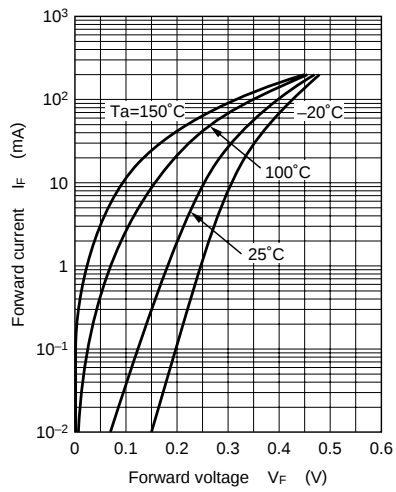
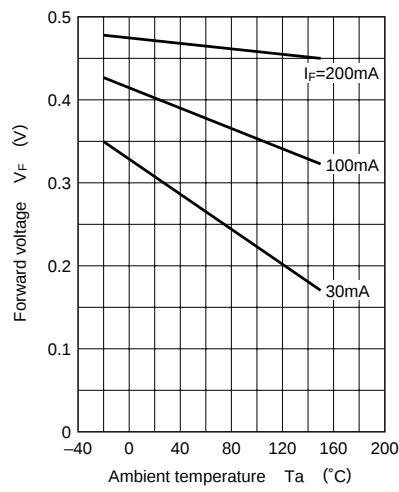
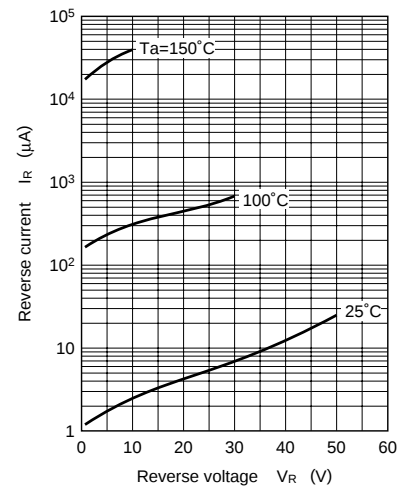
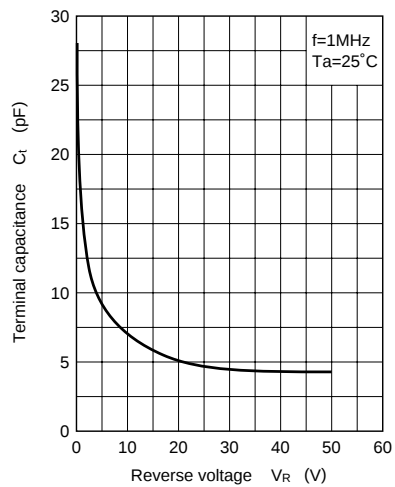
2. Rated input/output frequency : 1000MHz

3. \*  $t_{rr}$  measuring circuit



### ■ Marking



$I_F - V_F$  $V_F - T_a$  $I_R - V_R$  $C_t - V_R$  $I_R - T_a$ 