

# MA27D29

## Silicon epitaxial planar type

For super high speed switching

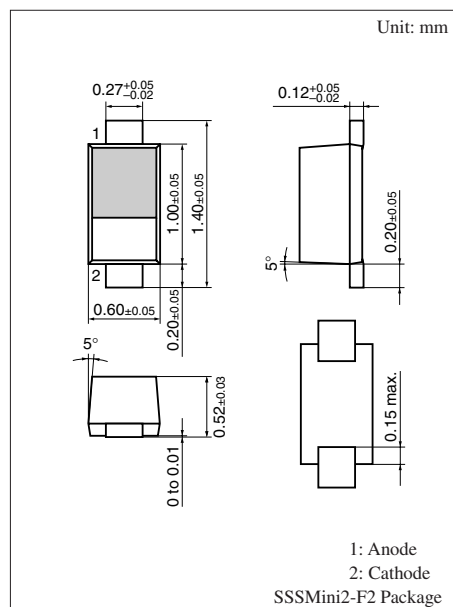
### ■ Features

- Low forward voltage:  $V_F < 0.42$  V (at  $I_F = 100$  mA)
- Optimum for high frequency rectification because of its short reverse recovery time  $t_{rr}$ .

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                                   | Symbol      | Rating      | Unit             |
|---------------------------------------------|-------------|-------------|------------------|
| Reverse voltage                             | $V_R$       | 30          | V                |
| Repetitive peak reverse voltage             | $V_{RRM}$   | 30          | V                |
| Forward current (Average)                   | $I_{F(AV)}$ | 100         | mA               |
| Peak forward current                        | $I_{FM}$    | 200         | mA               |
| Non-repetitive peak forward surge current * | $I_{FSM}$   | 1           | A                |
| Junction temperature                        | $T_j$       | 125         | $^\circ\text{C}$ |
| Storage temperature                         | $T_{stg}$   | -55 to +125 | $^\circ\text{C}$ |

Note) \*: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)



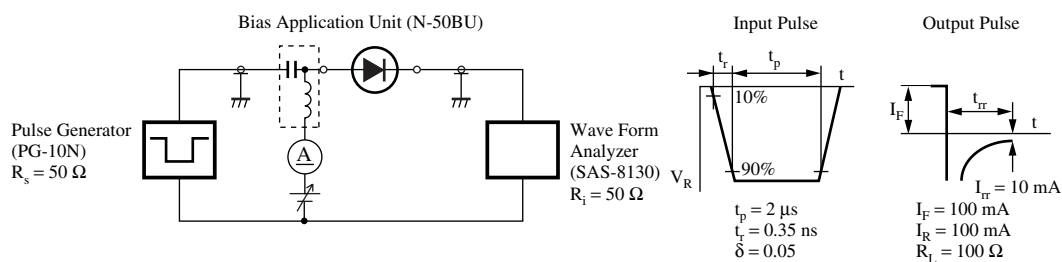
Marking Symbol: 8M

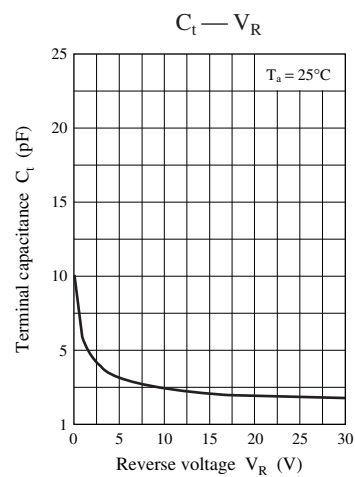
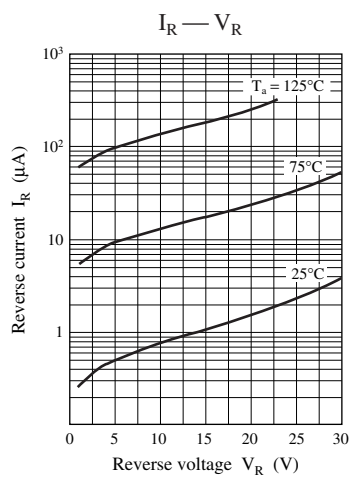
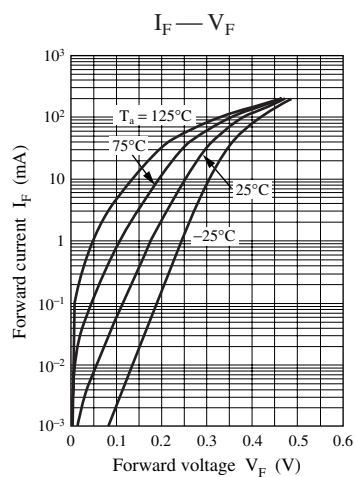
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter               | Symbol   | Conditions                                                     | Min | Typ  | Max  | Unit          |
|-------------------------|----------|----------------------------------------------------------------|-----|------|------|---------------|
| Forward voltage         | $V_{F1}$ | $I_F = 10$ mA                                                  |     | 0.25 | 0.29 | V             |
|                         | $V_{F2}$ | $I_F = 100$ mA                                                 |     | 0.39 | 0.42 | V             |
| Reverse current         | $I_{R1}$ | $V_R = 10$ V                                                   |     |      | 25   | $\mu\text{A}$ |
|                         | $I_{R2}$ | $V_R = 30$ V                                                   |     |      | 120  | $\mu\text{A}$ |
| Terminal capacitance    | $C_t$    | $V_R = 0$ V, $f = 1$ MHz                                       |     | 11   |      | pF            |
| Reverse recovery time * | $t_{rr}$ | $I_F = I_R = 100$ mA<br>$I_{rr} = 10$ mA, $R_L = 100$ $\Omega$ |     | 1    |      | ns            |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
3. Absolute frequency of input and output is 250 MHz
4. \*:  $t_{rr}$  measurement circuit





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