

MA27D30

Silicon epitaxial planar type

For super high speed switching

■ Features

- Small reverse current: $I_R < 2 \mu\text{A}$ (at $V_R = 30 \text{ V}$)
- 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 | $^\circ\text{C}$ |

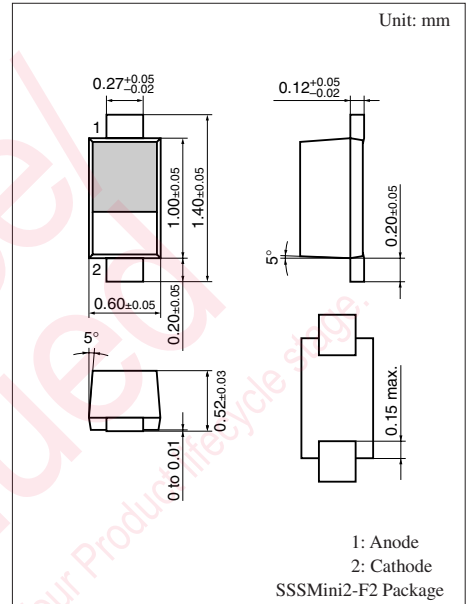
Note) * : The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

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

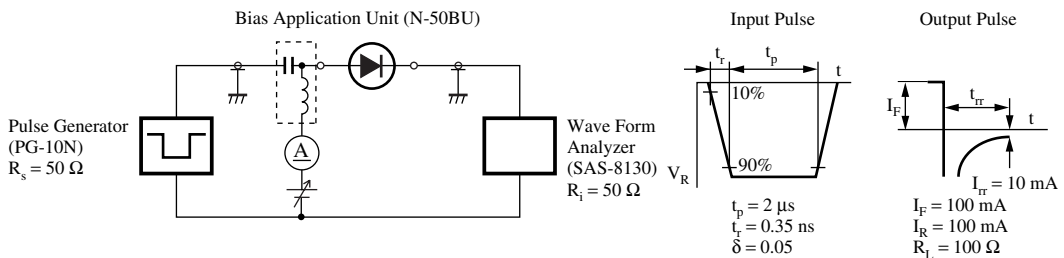
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|-------------------------|----------|--|-----|------|------|---------------|
| Forward voltage | V_{F1} | $I_F = 10 \text{ mA}$ | | 0.38 | 0.44 | V |
| | V_{F2} | $I_F = 100 \text{ mA}$ | | 0.51 | 0.58 | V |
| Reverse current | I_{R1} | $V_R = 10 \text{ V}$ | | | 0.3 | μA |
| | I_{R2} | $V_R = 30 \text{ V}$ | | | 2 | μA |
| Terminal capacitance | C_t | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$ | | 9 | | pF |
| Reverse recovery time * | t_{rr} | $I_F = I_R = 100 \text{ mA}$ $I_{rr} = 10 \text{ mA}, R_L = 100 \Omega$ | | 1 | | ns |

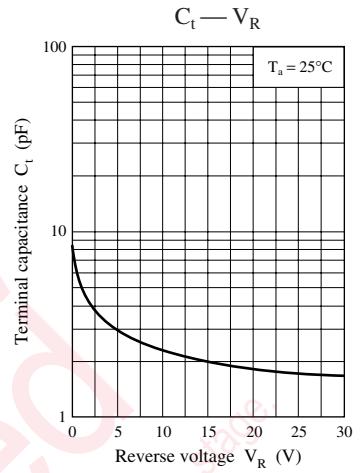
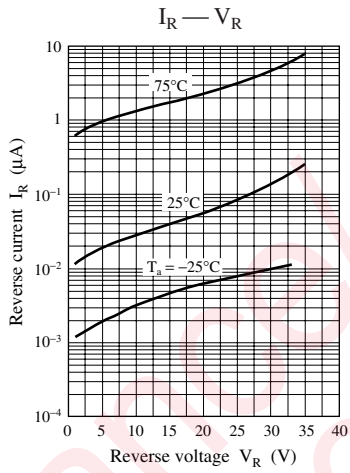
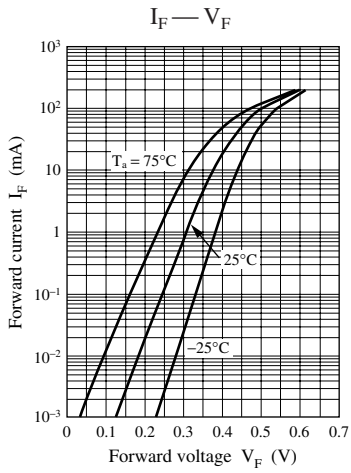
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

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



Marking Symbol: 8N





Maintenance/Discontinued

includes following four Product lifecycle types

- planned maintenance type
- maintenance type
- planned discontinued type
- discontinued type

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standard applications or general electronic equipment (such as office
and household appliances).

ng applications:

biles, traffic control equipment, combustion equipment, life support
reliability are required, or if the failure or malfunction of the prod-

ck are subject to change without notice for modification and/or im-
use of the products, therefore, ask for the most up-to-date Product
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bsolute maximum rating and the guaranteed operating conditions
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er-off and mode-switching. Otherwise, we will not be liable for any

take into the consideration of incidence of break down and failure
n the systems such as redundant design, arresting the spread of fire
al injury, fire, social damages, for example, by using the products.

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mounting or at customer's process. When using products for which
shelf life and the elapsed time since first opening the packages.

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