

# MA2J113 (MA113)

Silicon epitaxial planar type

For switching circuits

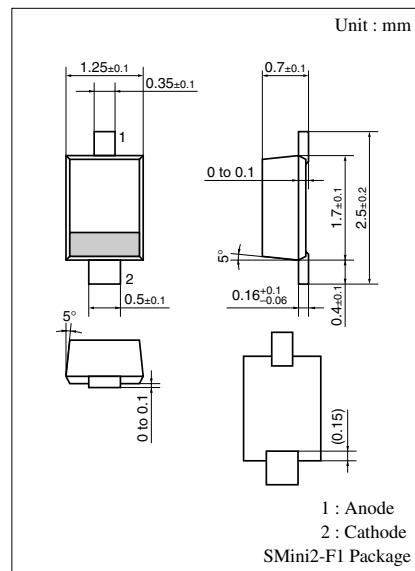
■ Features

- Small S-mini type package, allowing high-density mounting
- Ensuring the average forward current capacity  $I_{F(AV)} = 200$  mA
- High breakdown voltage ( $V_R = 80$  V)

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

| Parameter                                  | Symbol    | Rating      | Unit             |
|--|-----------|-------------|------------------|
| Reverse voltage (DC)                       | $V_R$     | 80          | V                |
| Peak reverse voltage                       | $V_{RM}$  | 80          | V                |
| Forward current (DC)                       | $I_F$     | 200         | mA               |
| Peak forward current                       | $I_{FM}$  | 600         | mA               |
| Non-repetitive peak forward surge current* | $I_{FSM}$ | 1           | A                |
| Junction temperature                       | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature                        | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

Noe) \* :  $t = 1$  s



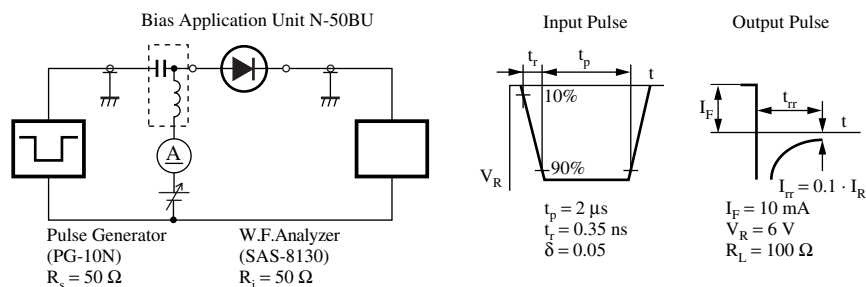
Marking Symbol: 1D

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

| Parameter              | Symbol   | Conditions  | Min | Typ | Max | Unit          |
|------------------------|----------|---|-----|-----|-----|---------------|
| Reverse current (DC)   | $I_{R1}$ | $V_R = 15$ V  |     |     | 50  | nA            |
|                        | $I_{R2}$ | $V_R = 75$ V  |     |     | 500 | nA            |
|                        | $I_{R3}$ | $V_R = 75$ V, $T_a = 100^\circ\text{C}$                                     |     |     | 100 | $\mu\text{A}$ |
| Forward voltage (DC)   | $V_F$    | $I_F = 200$ mA  |     |     | 1.1 | V             |
| Terminal capacitance   | $C_t$    | $V_R = 0$ V, $f = 1$ MHz  |     |     | 4   | pF            |
| Reverse recovery time* | $t_{rr}$ | $I_F = 10$ mA, $V_R = 6$ V<br>$I_{tr} = 0.1 \cdot I_R$ , $R_L = 100 \Omega$ |     |     | 10  | ns            |

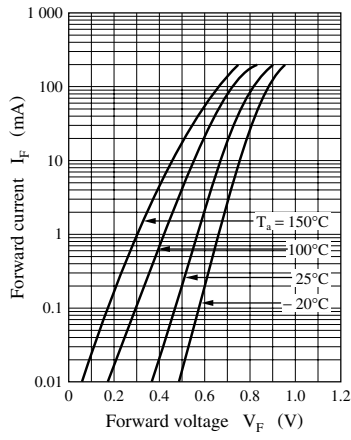
Note) 1. Rated input/output frequency: 100 MHz

2. \* :  $t_{rr}$  measuring circuit

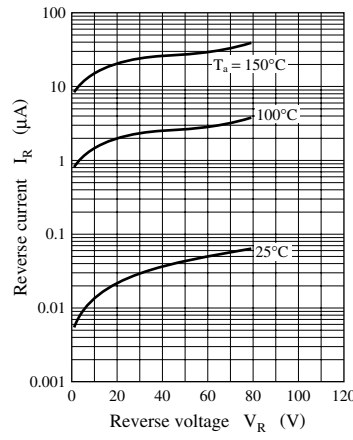


Note) The part number in the parenthesis shows conventional part number.

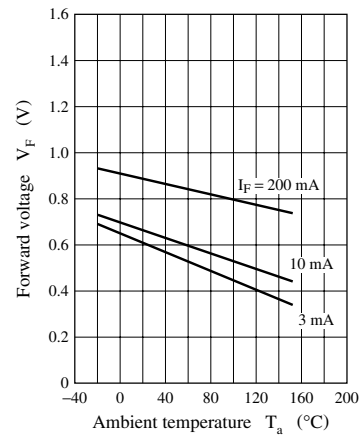
$I_F - V_F$



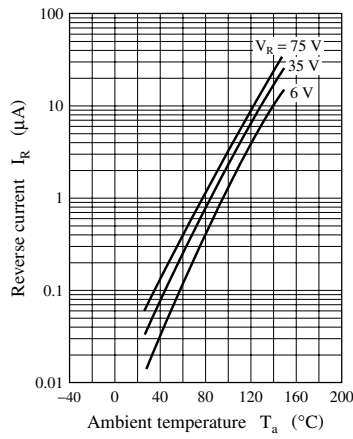
$I_R - V_R$



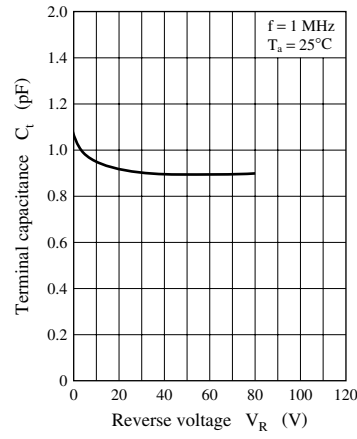
$V_F - T_a$



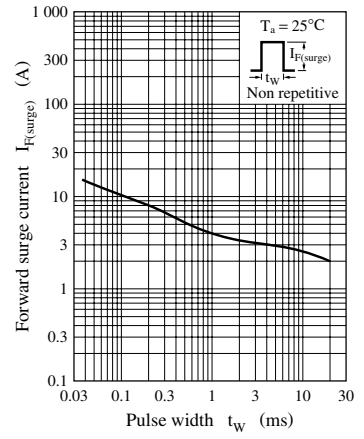
$I_R - T_a$



$C_t - V_R$



$I_{F(surge)} - t_w$



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