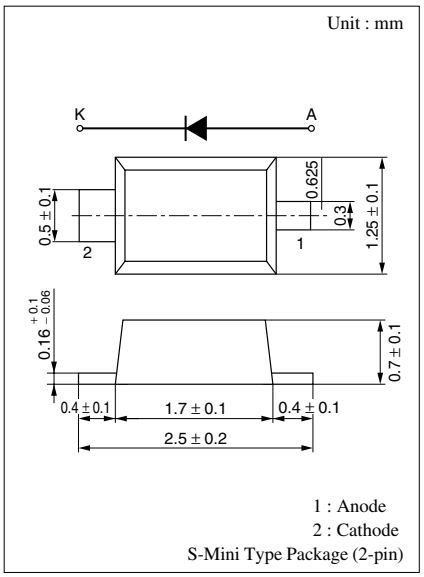
# MA2J113 (MA113)

## Silicon epitaxial planar type

For switching circuits




Marking Symbol: 1D

### ■ 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°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 | °C |
| Storage temperature | $T_{stg}$ | −55 to +150 | °C |

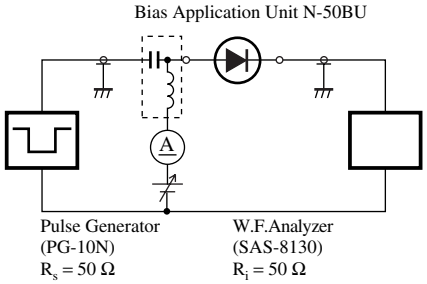
Noe) * : t = 1 s

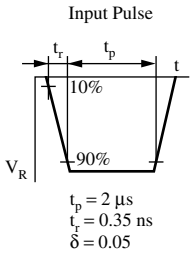
### ■ Electrical Characteristics $T_a$ = 25°C

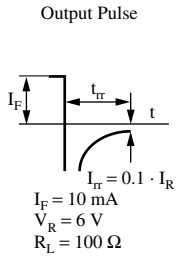
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse current (DC) | $I_{R1}$ | $V_R$ = 15 V | | | 50 | nA |
| | $I_{R2}$ | $V_R$ = 75 V | | | 500 | nA |
| | $I_{R3}$ | $V_R$ = 75 V, $T_a$ = 100°C | | | 100 | µA |
| Forward voltage (DC) | $V_F$ | $I_F$ = 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>$I_{rr}$ = 0.1 · $I_R$, $R_L$ = 100 Ω | | | 10 | ns |

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

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

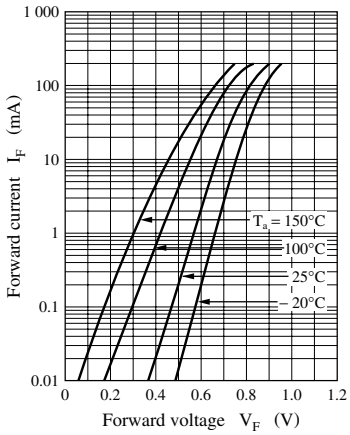


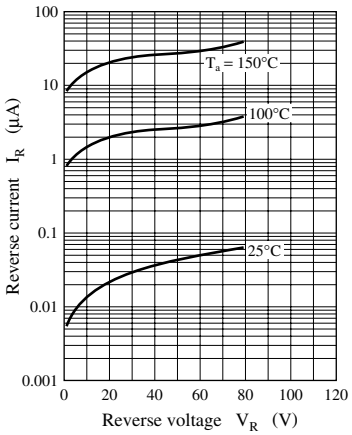




Note) The part number in the parenthesis shows conventional part number.

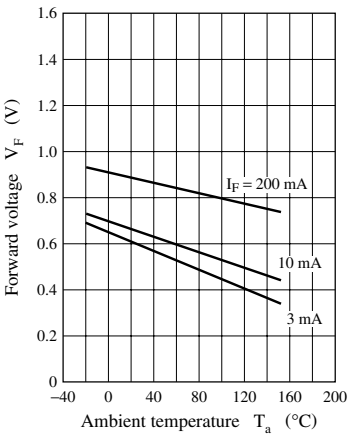
$I_F$ — $V_F$



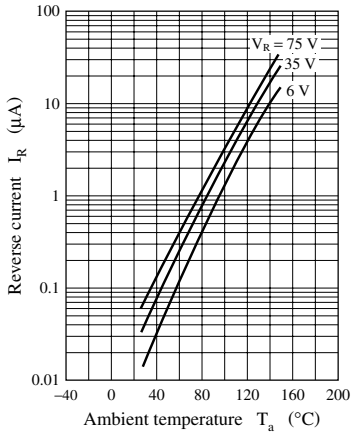

$I_R$ — $V_R$



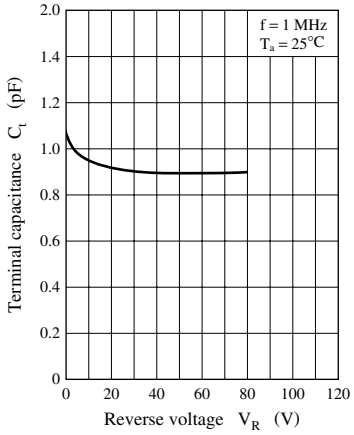

$V_F$ — $T_a$



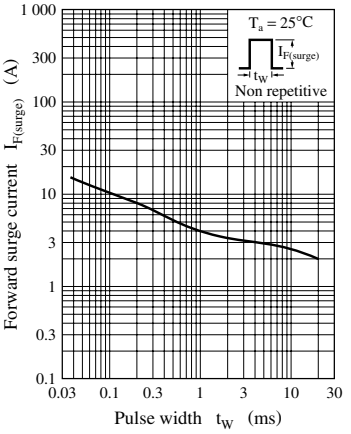

$I_R$ — $T_a$




$C_t$ — $V_R$




$I_{F(surge)}$ — $t_W$



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