

MA700, MA700A

Silicon epitaxial planer type

For ordinary wave detection

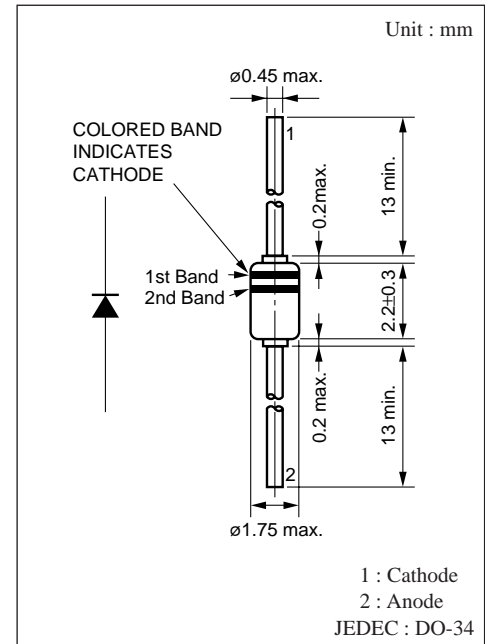
For super high speed switching

■ Features

- Low forward rise voltage V_F and satisfactory wave detection efficiency
- Temperature coefficient of forward characteristic is small.
- Extremely low reverse current I_R
- DO-34 (DHD) envelope, enabling 5mm pitch insertion

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

| Parameter | Symbol | Rating | Unit |
|----------------------|-----------|---------------|------------------|
| Reverse voltage (DC) | MA700 | 15 | V |
| | MA700A | 30 | |
| Peak reverse voltage | MA700 | 15 | V |
| | MA700A | 30 | |
| Peak forward current | I_{FM} | 150 | mA |
| Forward current (DC) | I_F | 30 | mA |
| Junction temperature | T_j | 125 | A |
| Storage temperature | T_{stg} | - 55 to + 125 | $^\circ\text{C}$ |



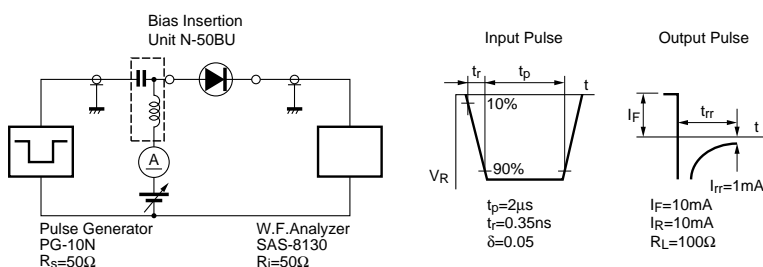
■ Electrical Characteristics ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Condition | min | typ | max | Unit |
|-----------------------|------------|---|-----|-----|-----|------|
| Reverse current (DC) | MA700 | $V_R = 15\text{V}$ | | | 100 | nA |
| | MA700A | $V_R = 30\text{V}$ | | | 150 | |
| Forward voltage (DC) | V_{F1} | $I_F = 1\text{mA}$ | | | 0.4 | V |
| | V_{F2} | $I_F = 30\text{mA}$ | | | 1 | V |
| Terminal capacitance | C_t | $V_R = 1\text{V}, f = 1\text{MHz}$ | | 1.3 | | pF |
| Reverse recovery time | t_{rr}^* | $I_F = I_R = 10\text{mA}$ $I_{rr} = 1\text{mA}, R_L = 100\Omega$ | | 1 | | ns |
| Detection efficiency | η | $V_{in} = 3V_{(peak)}, f = 30\text{MHz}$ $R_L = 3.9k\Omega, C_L = 10\text{pF}$ | | 60 | | % |

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 : 2000MHz

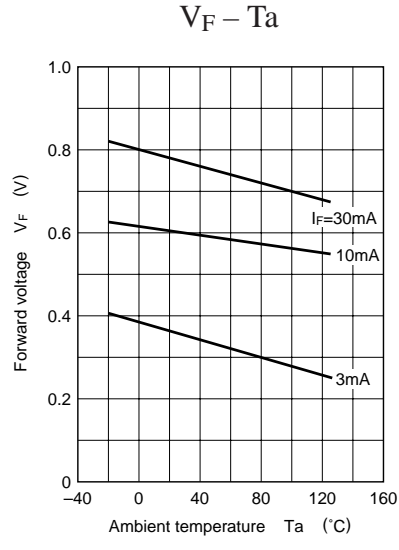
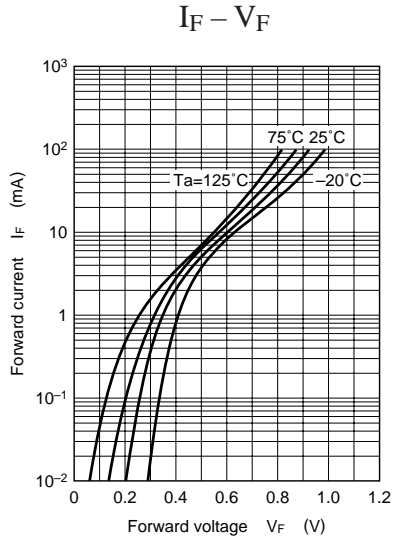
3. * t_{rr} measuring circuit



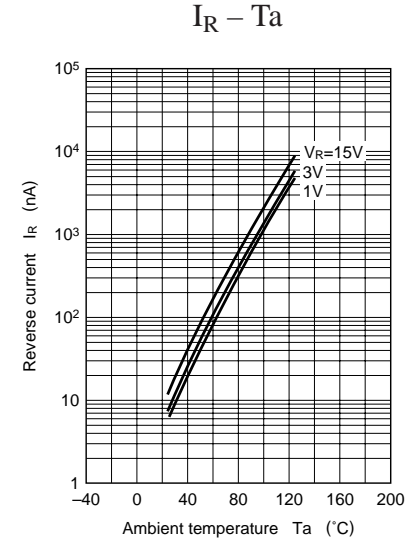
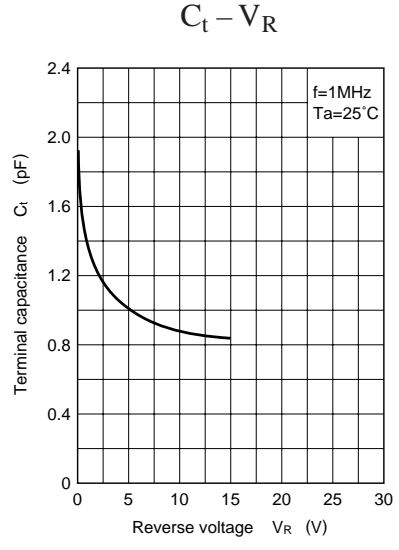
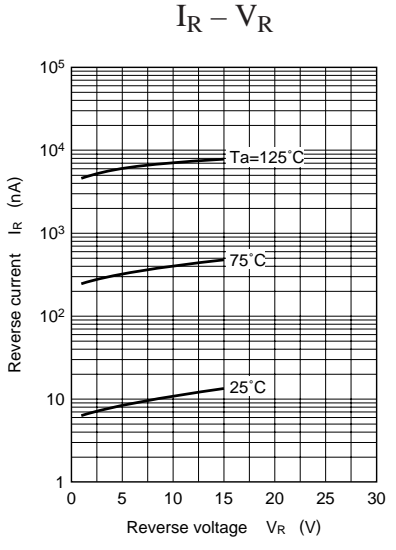
■ Cathode Indication

| Type No. | MA700 | MA700A |
|----------|------------------|--------|
| Color | 1st Band: Silver | Silver |
| | 2nd Band: — | Green |

Common characteristics chart



Characteristics chart of MA700



Characteristics chart of MA700A

