

MA3X704, MA3X704A

Silicon epitaxial planar type

For switching circuits

For wave detection circuit

■ Features

- Low forward rise voltage (V_F) and satisfactory wave detection efficiency (η)
- Small temperature coefficient of forward characteristic
- Extremely low reverse current I_R

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

| Parameter | Symbol | Rating | Unit | |
|----------------------|----------|-----------|-------------|------------------|
| Reverse voltage (DC) | MA3X704 | V_R | 15 | V |
| | MA3X704A | | 30 | |
| Peak reverse voltage | MA3X704 | V_{RM} | 15 | V |
| | MA3X704A | | 30 | |
| Peak forward current | | I_{FM} | 150 | mA |
| Forward current (DC) | | I_F | 30 | mA |
| Junction temperature | | T_j | 125 | $^\circ\text{C}$ |
| Storage temperature | | T_{stg} | -55 to +125 | $^\circ\text{C}$ |

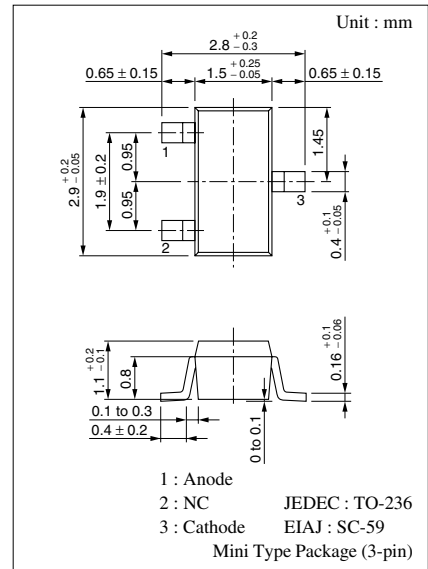
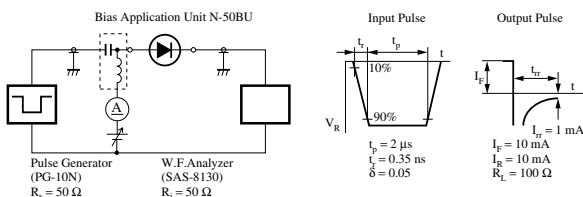
■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|------------------------|----------|--|-----|-----|-----|------|
| Reverse current (DC) | MA3X704 | $V_R = 15\text{ V}$ | | | 200 | nA |
| | MA3X704A | $V_R = 30\text{ V}$ | | | 300 | |
| Forward voltage (DC) | | $I_F = 1\text{ mA}$ | | | 0.4 | V |
| | | $I_F = 30\text{ mA}$ | | | 1 | |
| Terminal capacitance | C_t | $V_R = 1\text{ V}, f = 1\text{ MHz}$ | | 1.5 | | pF |
| Reverse recovery time* | t_{rr} | $I_F = I_R = 10\text{ mA}$ $I_{tr} = 1\text{ mA}, R_L = 100\ \Omega$ | | 1 | | ns |
| Detection efficiency | η | $V_{in} = 3\text{ V}_{(\text{peak})}, f = 30\text{ MHz}$ $R_L = 3.9\text{ k}\Omega, C_L = 10\text{ pF}$ | | 65 | | % |

Note) 1. Schottky barrier diode 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

2. Rated input/output frequency: 2 000 MHz

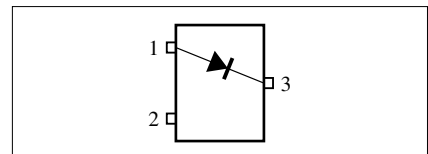
3. *: t_{rr} measuring instrument



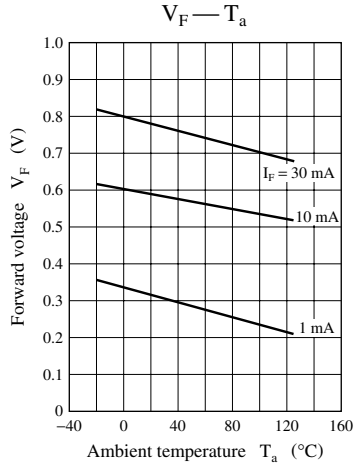
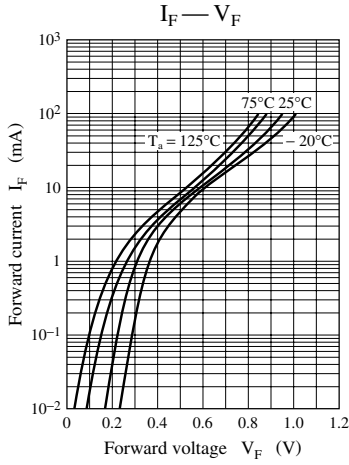
Marking Symbol

- MA3X704 : M1K
- MA3X704A : M1L

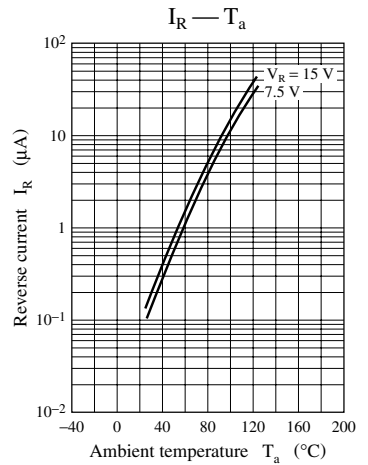
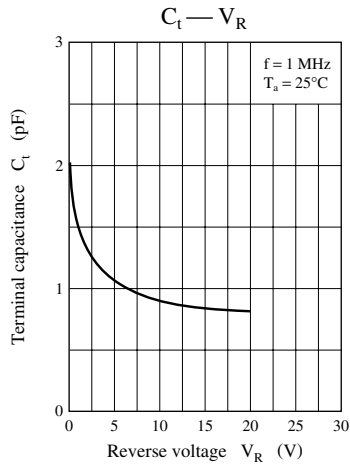
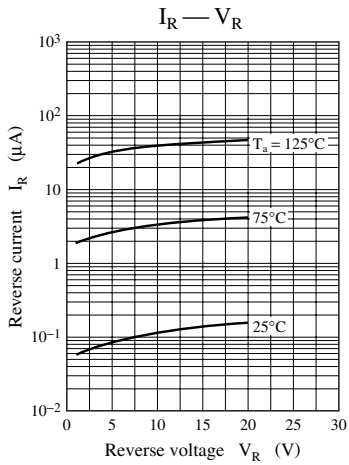
Internal Connection



Common characteristics charts



Characteristics charts of MA3X704



Characteristics charts of MA3X704A

