

MA3X717

Silicon epitaxial planar type

For switching circuits

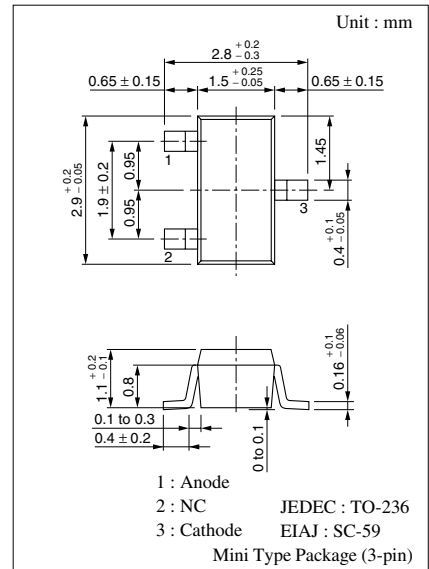
For wave detection circuit

■ Features

- Optimum for low-voltage rectification because of its low forward rise voltage (V_F) (Low V_F type of MA3X704A)
- Optimum for high-frequency rectification because of its short reverse recovery time (t_{rr})

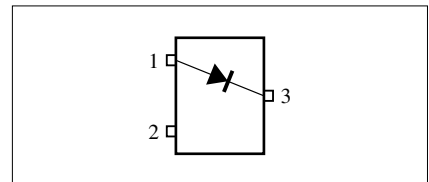
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|----------------------|-----------|-------------|------------------|
| Reverse voltage (DC) | V_R | 30 | V |
| 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 | $^\circ\text{C}$ |



Marking Symbol: M2M

Internal Connection



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

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|------------------------|----------|---|-----|-----|-----|---------------|
| Reverse current (DC) | I_R | $V_R = 30\text{ V}$ | | | 30 | μA |
| Forward voltage (DC) | V_{F1} | $I_F = 1\text{ mA}$ | | | 0.3 | V |
| | V_{F2} | $I_F = 30\text{ mA}$ | | | 1.0 | V |
| Terminal capacitance | C_t | $V_R = 1\text{ V}, f = 1\text{ MHz}$ | | 1.5 | | pF |
| Reverse recovery time* | t_{rr} | $I_F = I_R = 10\text{ mA}$ $I_{rr} = 1\text{ mA}, R_L = 100\ \Omega$ | | 1.0 | | ns |
| Detection efficiency | η | $V_{in} = 3\text{ V}_{(peak)}, f = 30\text{ MHz}$ $R_L = 3.9\text{ k}\Omega, C_L = 10\text{ pF}$ | | 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

