

MA3X717 (MA717)

Silicon epitaxial planar type

For switching

For wave detection

■ Features

- Low forward voltage V_F , optimum for low voltage rectification
- Low V_F type of MA3X704A (MA704A)
- 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 | V_R | 30 | V |
| Maximum peak reverse voltage | V_{RM} | 30 | V |
| Peak forward current | I_{FM} | 150 | mA |
| Forward current | I_F | 30 | mA |
| Junction temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +125 | $^\circ\text{C}$ |

■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

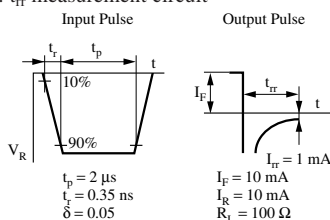
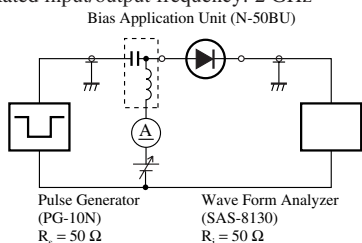
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|-------------------------|----------|---------------------------------------------------------------------------------------------------------|-----|-----|-----|---------------|
| Forward voltage | V_{F1} | $I_F = 1 \text{ mA}$ | | | 0.3 | V |
| | V_{F2} | $I_F = 30 \text{ mA}$ | | | 1.0 | |
| Reverse current | I_R | $V_R = 30 \text{ V}$ | | | 30 | μA |
| 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. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

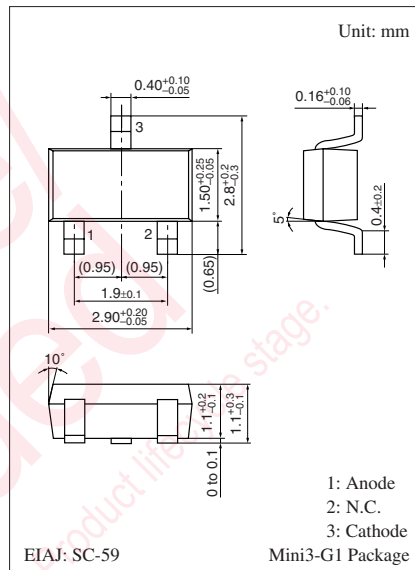
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

3. Rated input/output frequency: 2 GHz

4. *: t_{rr} measurement circuit

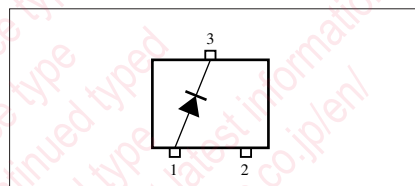


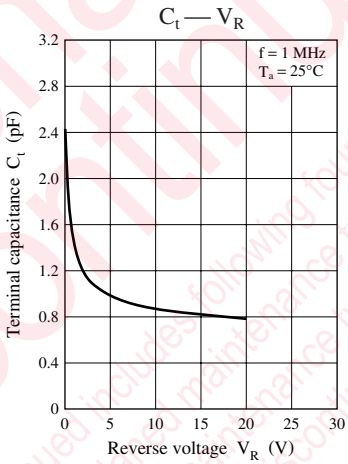
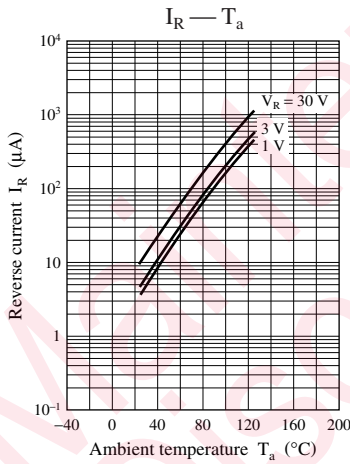
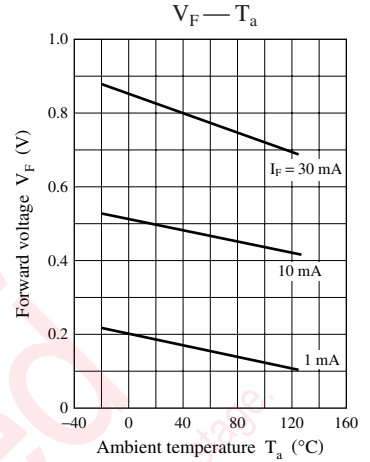
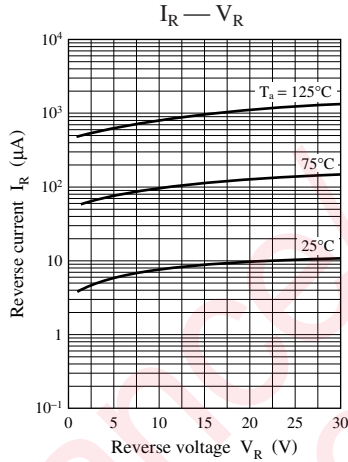
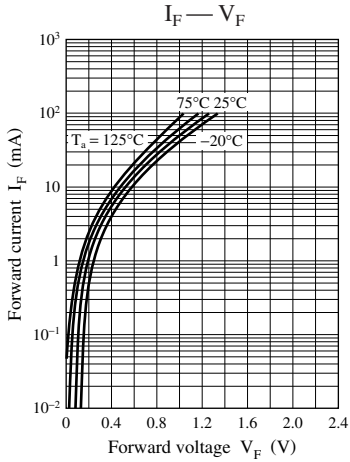
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: M2M

Internal Connection





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