

# MA2Q738

## Silicon epitaxial planar type

For high-frequency rectification

### ■ Features

- Forward current (average)  $I_{F(AV)}$ : 1.5 A type
- Reverse voltage (DC value)  $V_R$ : 40 V
- Allowing automatic insertion with the emboss taping

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

| Parameter                                   | Symbol      | Rating      | Unit             |
|---------------------------------------------|-------------|-------------|------------------|
| Reverse voltage (DC)                        | $V_R$       | 40          | V                |
| Repetitive peak reverse voltage             | $V_{RRM}$   | 40          | V                |
| Average forward current*1                   | $I_{F(AV)}$ | 1.5         | A                |
| Non-repetitive peak forward surge current*2 | $I_{FSM}$   | 60          | A                |
| Junction temperature                        | $T_j$       | -40 to +125 | $^\circ\text{C}$ |
| Storage temperature                         | $T_{stg}$   | -40 to +125 | $^\circ\text{C}$ |

Note) \*1 : With a printed-circuit board (copper foil area 2.5 mm × 2.5 mm + 0.8 mm × 20 mm or more on both cathode and anode sides)

\*2 : The peak-to-peak value in one cycle of 50 Hz sine-wave (non-repetitive)

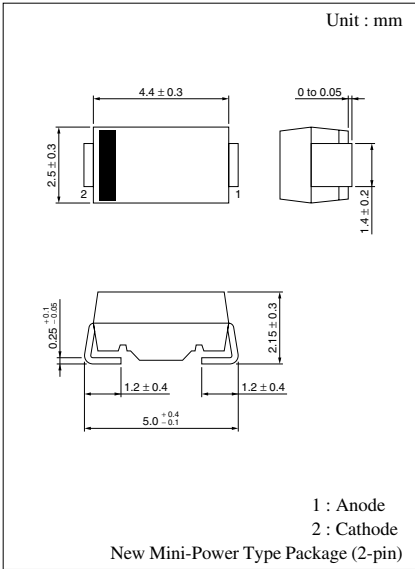
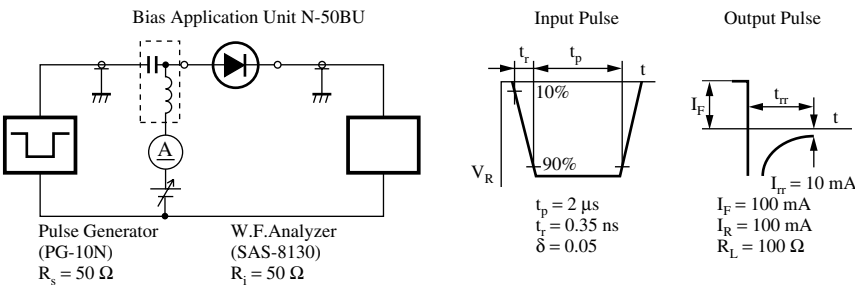
### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter              | Symbol   | Conditions                                                                | Min | Typ | Max  | Unit |
|------------------------|----------|---------------------------------------------------------------------------|-----|-----|------|------|
| Reverse current (DC)   | $I_R$    | $V_R = 40\text{ V}$                                                       |     |     | 2    | mA   |
| Forward voltage (DC)   | $V_F$    | $I_F = 2\text{ A}$                                                        |     |     | 0.55 | V    |
| Terminal capacitance   | $C_t$    | $V_R = 10\text{ V}, f = 1\text{ MHz}$                                     |     | 70  |      | pF   |
| Reverse recovery time* | $t_{rr}$ | $I_F = I_R = 100\text{ mA}$<br>$I_{rr} = 10\text{ mA}, R_L = 100\ \Omega$ |     |     | 50   | ns   |

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: 20 MHz

3. \*:  $t_{rr}$  measuring instrument



Marking Symbol: PD

$$I_{F(AV)} - T_a$$

(1) Printed-circuit board: Glass epoxy board

(2) Printed-circuit board: Alumina board

Copper foil for both A and K sides

2.5 mm × 2.5 mm + 0.8 mm × 20 mm

