# **MA4X160A** (MA160A)

## Silicon epitaxial planar type

#### For switching circuits

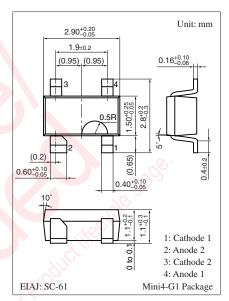
#### ■ Features

- Two isolated elements contained in one package, allowing highdensity mounting
- Centrosymmetrical wiring, allowing to free from the taping direction
- Short reverse recovery time t<sub>rr</sub>
- ullet Small terminal capacitance  $C_t$

### ■ Absolute Maximum Ratings $T_a = 25$ °C

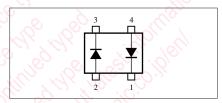
| Parameter                       |        | Symbol           | Rating      | Unit |
|---------------------------------|--------|------------------|-------------|------|
| Reverse voltage                 |        | $V_R$            | 80          | V    |
| Repetitive peak reverse voltage |        | V <sub>RRM</sub> | 80          | V    |
| Forward current                 | Single | $I_{F(AV)}$      | 100         | mA   |
| (Average)                       | Series |                  | 75          |      |
| Repetitive peak                 | Single | $I_{FRM}$        | 225         | mA   |
| forward current                 | Series |                  | 170         |      |
| Non-repetitive peak             | Single | $I_{FSM}$        | 500         | mA   |
| forward surge current *         | Series |                  | 375         | (0). |
| Junction temperature            |        | T <sub>j</sub>   | 150         | C C  |
| Storage temperature             |        | $T_{stg}$        | -55 to +150 | °C   |

Note) \*: t = 1 s



Marking Symbol: M1E

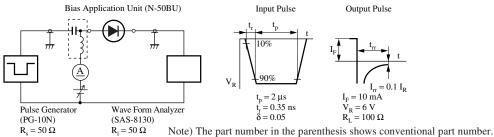
#### Internal Connection

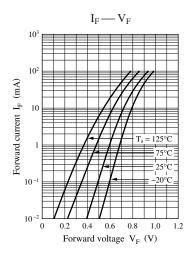


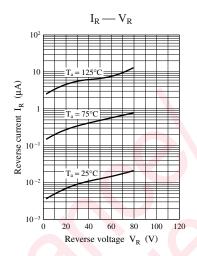
### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

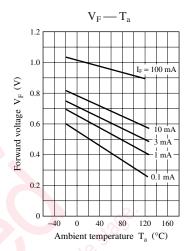
| Parameter               | Symbol          | Conditions                               | Min | Тур  | Max  | Unit |
|-------------------------|-----------------|--|-----|------|------|------|
| Forward voltage         | $V_{\rm F}$     | $I_F = 100 \text{ mA}$                   |     | 0.95 | 1.20 | V    |
| Reverse voltage         | V <sub>R</sub>  | $I_R = 100 \mu A$                        | 80  |      |      | V    |
| Reverse current         | $I_R$           | V <sub>R</sub> = 75 V                    |     |      | 0.1  | μΑ   |
| Terminal capacitance    | $C_{t}$         | $V_R = 0 \text{ V, f} = 1 \text{ MHz}$   |     | 0.9  | 2.0  | pF   |
| Reverse recovery time * | t <sub>rr</sub> | $I_F = 10 \text{ mA}, V_R = 6 \text{ V}$ |     |      | 3    | ns   |
| - H,                    |                 | $I_{rr} = 0.1 I_{R}, R_{L} = 100 \Omega$ |     |      |      |      |

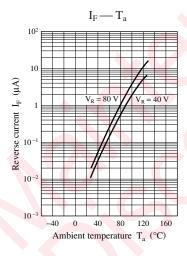
- Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
  - 2. Absolute frequency of input and output is 100 MHz.
  - 3. \*: t<sub>rr</sub> measurement circuit

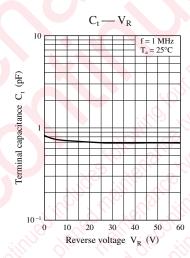


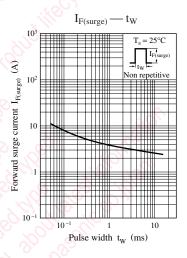












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