

# MA3X152D (MA152WA), MA3X152E (MA152WK)

Silicon epitaxial planar type

For high-speed switching circuits

■ Features

- Short reverse recovery time  $t_{rr}$
- Small terminal capacitance,  $C_t$

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

| Parameter                                   | Symbol    | Rating      | Unit             |
|---|-----------|-------------|------------------|
| Reverse voltage                             | $V_R$     | 80          | V                |
| Maximum peak reverse voltage                | $V_{RM}$  | 80          | V                |
| Forward current                             | Single    | $I_F$       | 100              |
|   | Double    |             | 150              |
| Peak forward current                        | Single    | $I_{FM}$    | 225              |
|   | Double    |             | 340              |
| Non-repetitive peak forward surge current * | Single    | $I_{FSM}$   | 500              |
|   | Double    |             | 750              |
| Junction temperature                        | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature                         | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

Note) \*:  $t = 1\text{ s}$

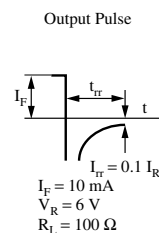
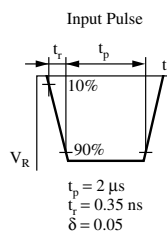
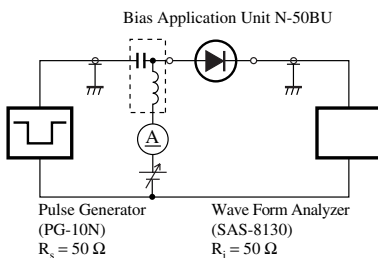
■ Electrical Characteristics  $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter               | Symbol   | Conditions  | Min | Typ | Max | Unit |
|-------------------------|----------|---|-----|-----|-----|------|
| Forward voltage         | $V_F$    | $I_F = 100\text{ mA}$   |     |     | 1.2 | V    |
| Reverse voltage         | $V_R$    | $I_R = 100\ \mu\text{A}$  | 80  |     |     | V    |
| Reverse current         | $I_R$    | $V_R = 75\text{ V}$   |     |     | 100 | nA   |
| Terminal capacitance    | MA3X152D | $V_R = 0\text{ V}, f = 1\text{ MHz}$  |     |     | 15  | pF   |
|                         | MA3X152E |   |     |     | 2   |      |
| Reverse recovery time * | MA3X152D | $I_F = 10\text{ mA}, V_R = 6\text{ V}$<br>$I_{rr} = 0.1 I_R, R_L = 100\ \Omega$ |     |     | 10  | ns   |
|                         | MA3X152E |   |     |     | 3   |      |

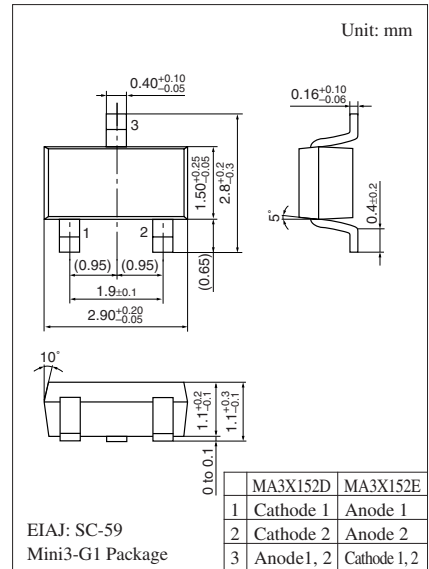
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring method for diodes.

2. Absolute frequency of input and output is 100 MHz.

3. \*:  $t_{rr}$  measurement circuit



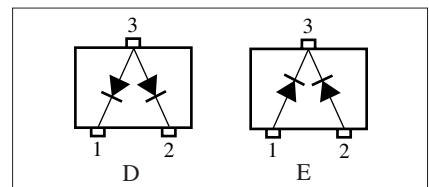
Note) The part numbers in the parenthesis show conventional part number.



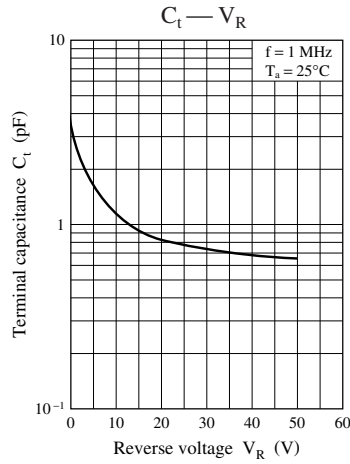
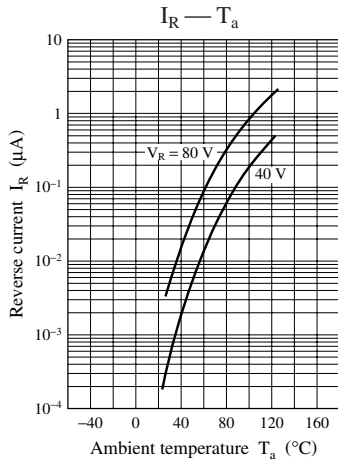
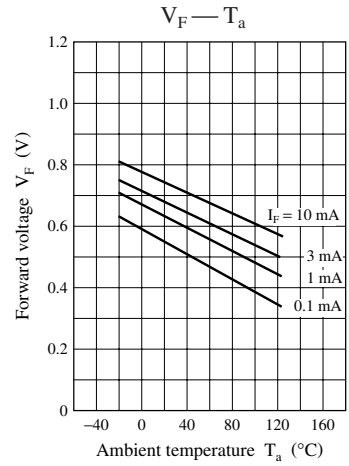
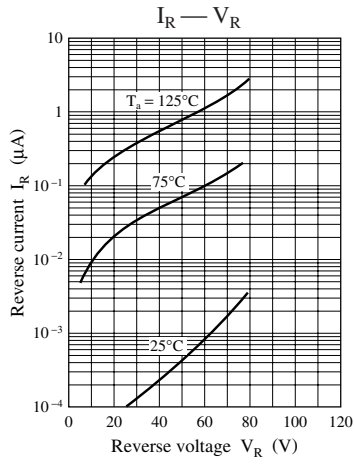
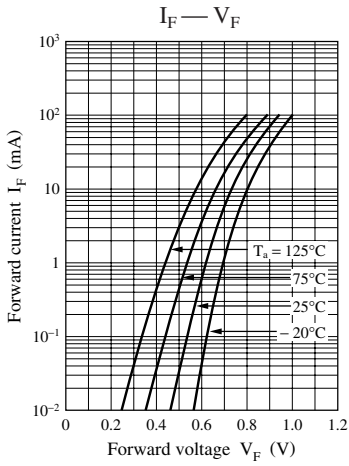
Marking Symbol

- MA3X152D: MO
- MA3X152E: MU

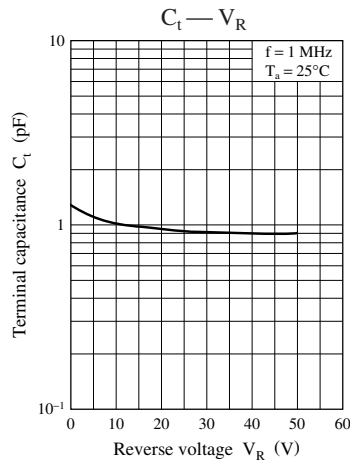
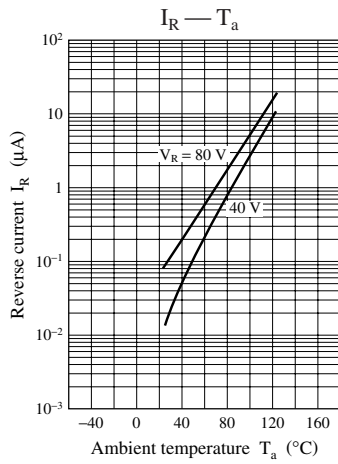
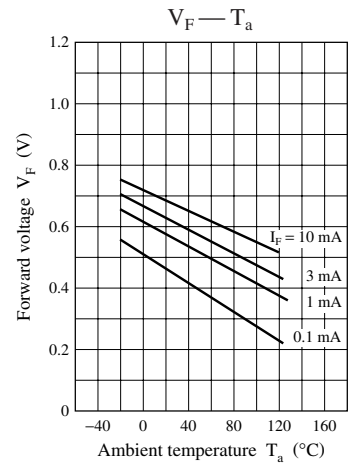
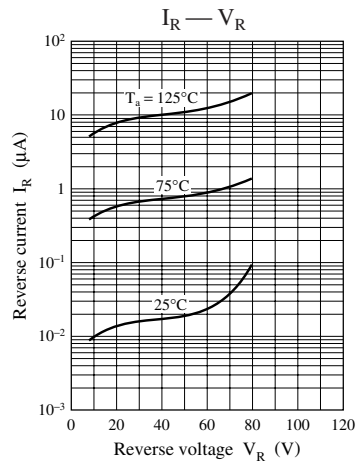
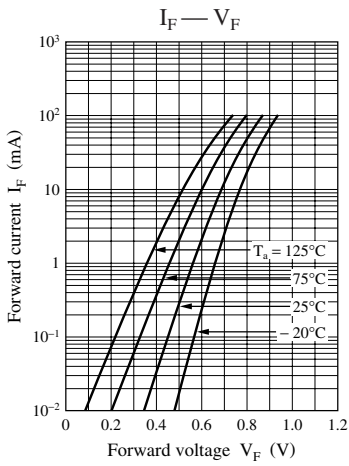
Internal Connection



Characteristics chart of MA3X152D



Characteristics chart of MA3X152E



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