

# DB3J407K

## Silicon epitaxial planar type

For high frequency rectification  
DB3X407K in SMini3 type package

### ■ Features

- Short reverse recovery time  $t_{rr}$
- Low forward voltage  $V_F$
- Halogen-free / RoHS compliant  
(EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)

### ■ Marking Symbol: 3J

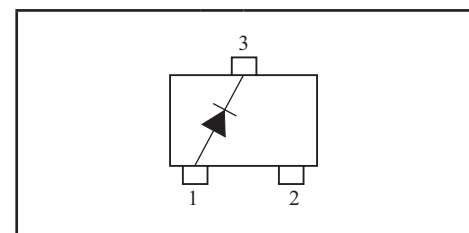
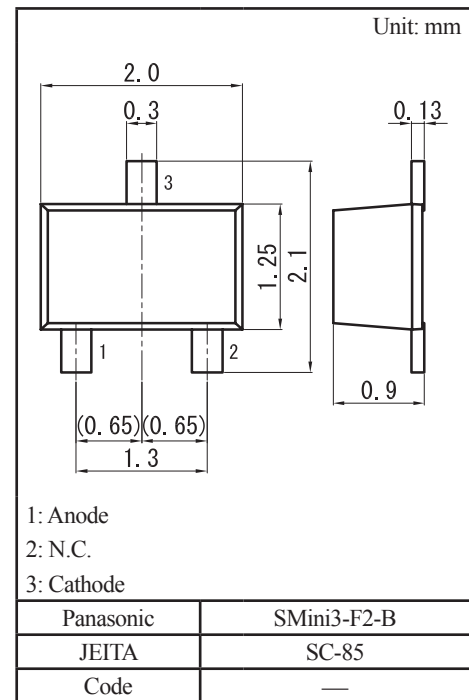
### ■ Packaging

DB3J407K0L Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)

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

| Parameter                                    | Symbol      | Rating      | Unit             |
|--|-------------|-------------|------------------|
| Reverse voltage                              | $V_R$       | 40          | V                |
| Repetitive peak reverse voltage              | $V_{RRM}$   | 40          | V                |
| Forward current (Average)                    | $I_{F(AV)}$ | 500         | mA               |
| Non-repetitive peak forward surge current *1 | $I_{FSM}$   | 2           | A                |
| Junction temperature                         | $T_j$       | 125         | $^\circ\text{C}$ |
| Operating ambient temperature                | $T_{opr}$   | -40 to +85  | $^\circ\text{C}$ |
| Storage temperature                          | $T_{stg}$   | -55 to +125 | $^\circ\text{C}$ |

Note) \*1: 50 Hz sine wave 1 cycle (Non-repetitive peak current)



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

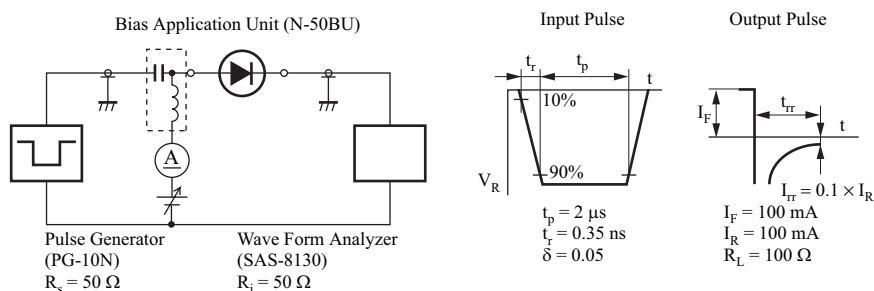
| Parameter                | Symbol   | Conditions  | Min | Typ | Max  | Unit          |
|--------------------------|----------|---|-----|-----|------|---------------|
| Forward voltage          | $V_F$    | $I_F = 500 \text{ mA}$  |     |     | 0.55 | V             |
| Reverse current          | $I_R$    | $V_R = 35 \text{ V}$  |     |     | 100  | $\mu\text{A}$ |
| Terminal capacitance     | $C_t$    | $V_R = 10 \text{ V}, f = 1 \text{ MHz}$                                 |     | 12  |      | pF            |
| Reverse recovery time *1 | $t_{rr}$ | $I_F = I_R = 100 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$ |     | 5   |      | ns            |

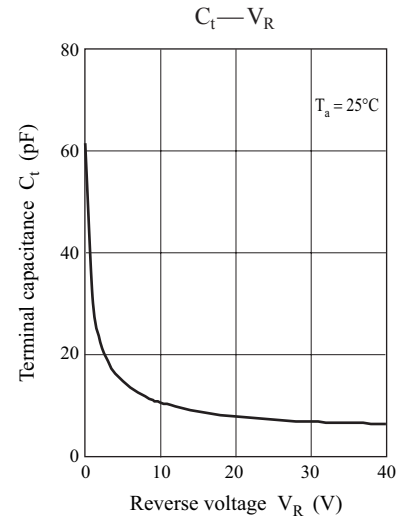
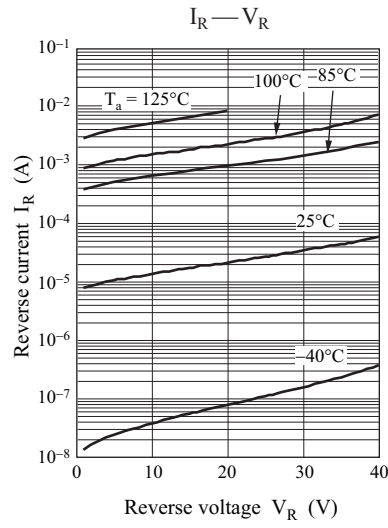
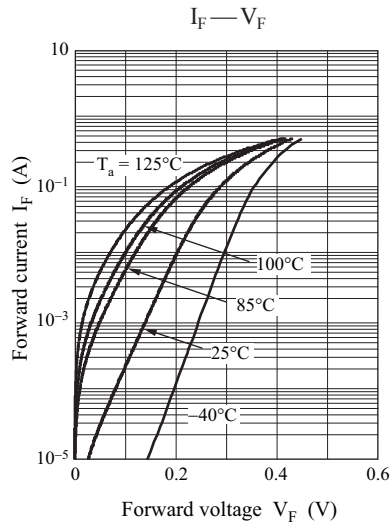
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

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. Absolute frequency of input and output is 400 MHz

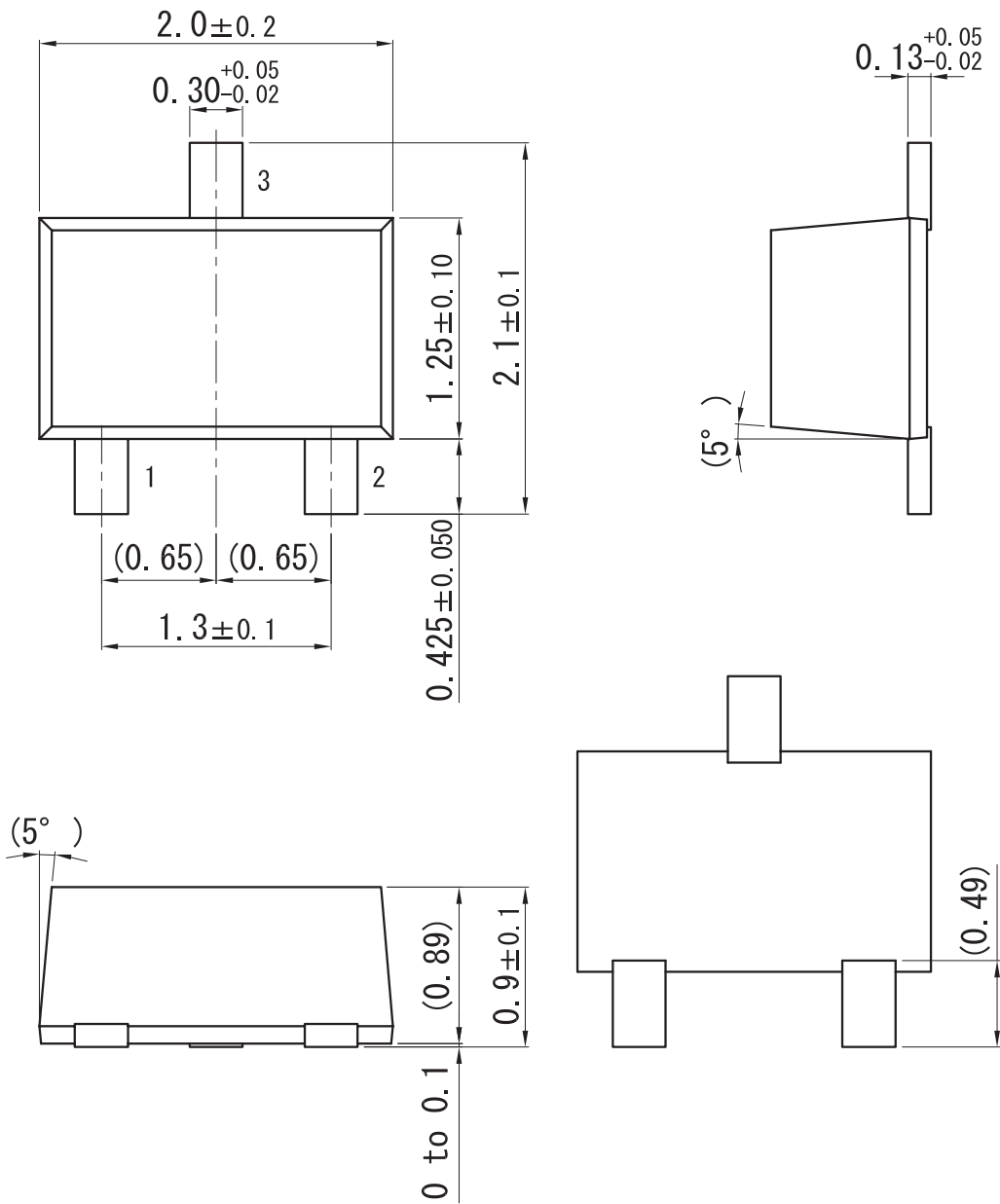
\*1:  $t_{rr}$  measurement circuit



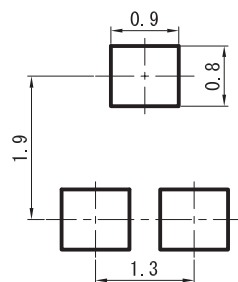


SMini3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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