

# DB5S308K

## Silicon epitaxial planar type

For high speed switching circuits

### ■ 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: 3A

### ■ Basic Part Number

Dual DB2S308 (Parallel)

### ■ Packaging

DB5S308K0R Embossed type (Thermo-compression sealing): 8 000 pcs / reel (standard)

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

| Parameter                                    | Symbol    | Rating      | Unit             |
|----------------------------------------------|-----------|-------------|------------------|
| Reverse voltage                              | $V_R$     | 30          | V                |
| Repetitive peak reverse voltage              | $V_{RRM}$ | 30          | V                |
| Forward current (Average)                    | Single    | 100         | mA               |
|                                              | Double *1 | 75          | mA               |
| Peak forward current                         | Single    | 300         | mA               |
|                                              | Double *1 | 225         | mA               |
| Non-repetitive peak forward surge current *2 | Single    | 1           | A                |
|                                              | Double *1 | 0.75        | 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: Value of each diode in double diodes used.

\*2: 50 Hz sine wave 1 cycle (Non-repetitive peak current)

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

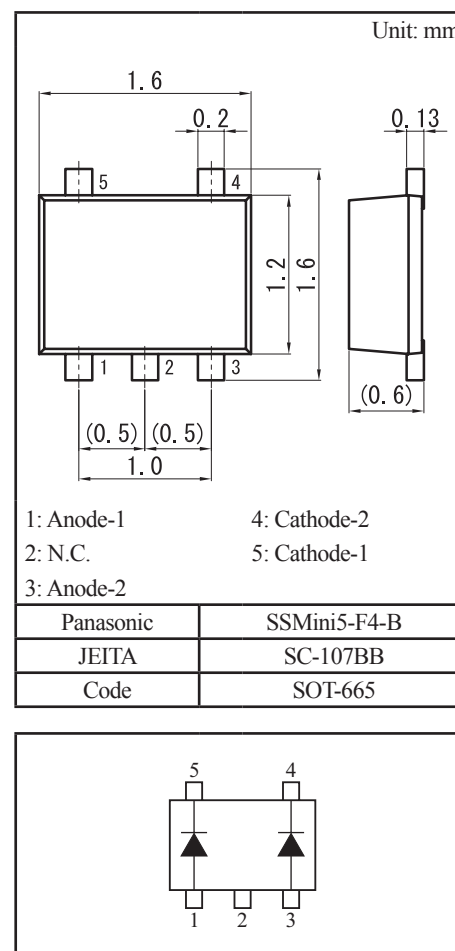
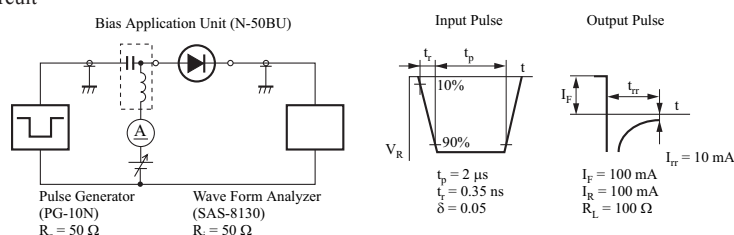
| Parameter                | Symbol   | Conditions                                                             | Min | Typ | Max  | Unit          |
|--------------------------|----------|------------------------------------------------------------------------|-----|-----|------|---------------|
| Forward voltage          | $V_{F1}$ | $I_F = 10 \text{ mA}$                                                  |     |     | 0.29 | V             |
|                          | $V_{F2}$ | $I_F = 100 \text{ mA}$                                                 |     |     | 0.42 |               |
| Reverse current          | $I_{R1}$ | $V_R = 10 \text{ V}$                                                   |     |     | 25   | $\mu\text{A}$ |
|                          | $I_{R2}$ | $V_R = 30 \text{ V}$                                                   |     |     | 120  |               |
| Terminal capacitance     | $C_t$    | $V_R = 10 \text{ V}, f = 1 \text{ MHz}$                                |     | 2.9 |      | pF            |
| Reverse recovery time *1 | $t_{rr}$ | $I_F = I_R = 100 \text{ mA}, I_{tr} = 10 \text{ mA}, R_L = 100 \Omega$ |     | 1.3 |      | ns            |

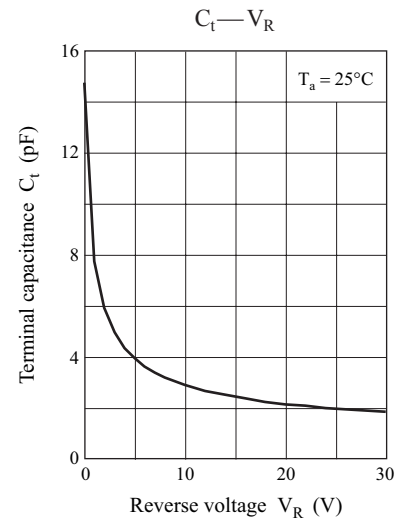
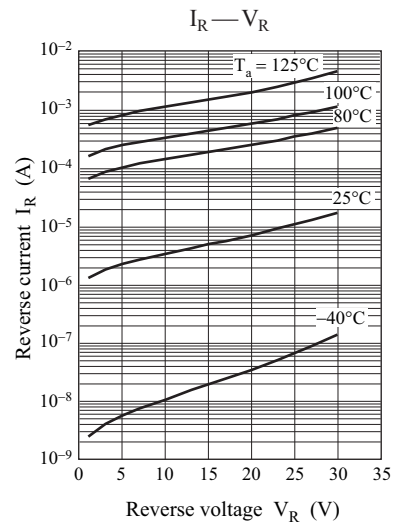
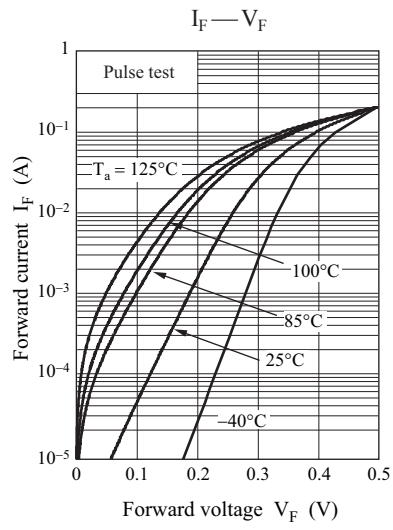
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

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 250 MHz

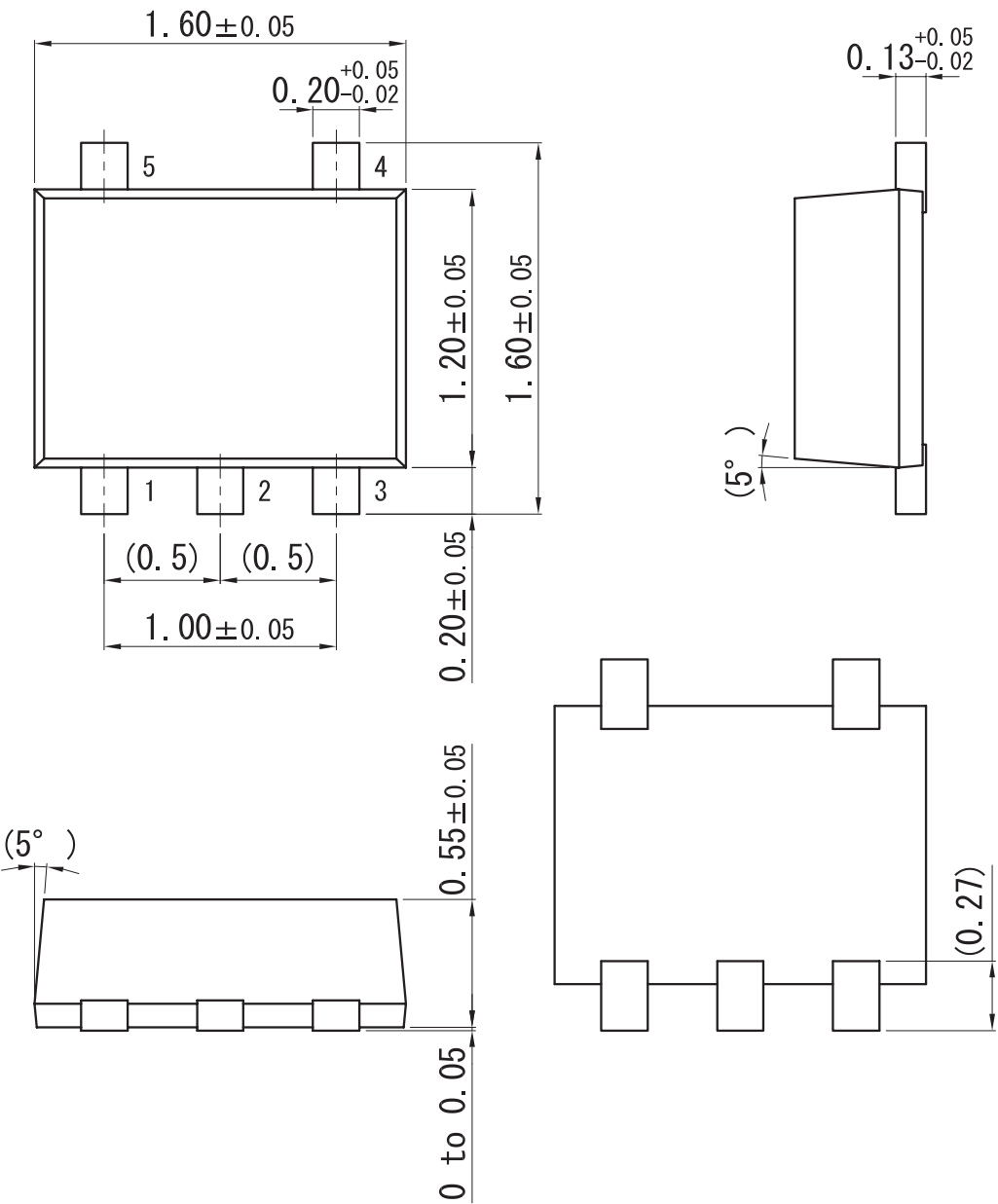
4. \*1:  $t_{rr}$  measurement circuit



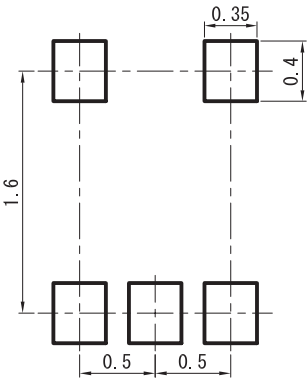


SSMini5-F4-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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