



## DB3Y313KEL

Silicon epitaxial planar type

For small current rectification

DB3X313K in NMini3 type package

### ■ Features

- Low forward voltage and small reverse leakage current
- Low terminal capacitance  $C_t$
- Halogen-free / RoHS compliant  
(EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

### ■ Marking Symbol :4J

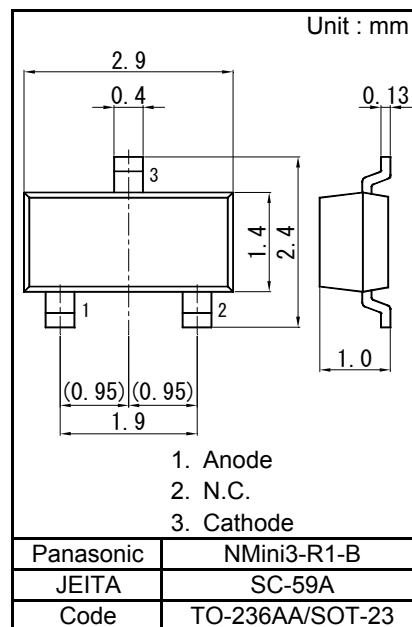
### ■ Packaging

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

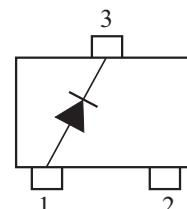
### ■ Absolute Maximum Ratings $T_a = 25\text{ }^{\circ}\text{C}$

| Parameter                                    | Symbol  | Rating      | Unit               |
|----------------------------------------------|---------|-------------|--------------------|
| Reverse voltage                              | VR      | 30          | V                  |
| Repetitive peak reverse voltage              | VRRM    | 30          | V                  |
| Forward current (Average)                    | IF (AV) | 200         | mA                 |
| Peak forward current                         | IFM     | 300         | mA                 |
| Non-repetitive peak forward surge current *1 | IFSM    | 1           | A                  |
| Junction temperature                         | Tj      | 125         | $^{\circ}\text{C}$ |
| Operating ambient temperature                | Topr    | -40 to +85  | $^{\circ}\text{C}$ |
| Storage temperature                          | Tstg    | -55 to +125 | $^{\circ}\text{C}$ |

Note) \*1 The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)



### Internal Connection



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

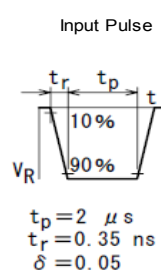
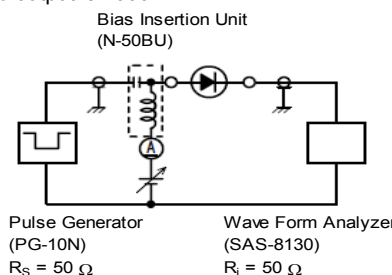
| Parameter                | Symbol | Conditions                                                   | Min | Typ | Max  | Unit          |
|--------------------------|--------|--------------------------------------------------------------|-----|-----|------|---------------|
| Forward voltage          | VF     | IF = 200 mA                                                  |     |     | 0.55 | V             |
| Reverse current          | IR     | VR = 30 V                                                    |     |     | 50   | $\mu\text{A}$ |
| Terminal capacitance     | Ct     | VR = 10 V, f = 1 MHz                                         |     | 3.8 |      | pF            |
| Reverse recovery time *1 | trr    | IF = IR = 100 mA, Irr = 0.1 $\times$ IR<br>RL = 100 $\Omega$ |     | 1.5 |      | ns            |

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

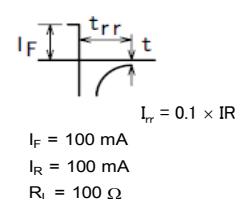
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

3. Absolute frequency of input and output is 1000 MHz.

4. \*1 trr measurement circuit

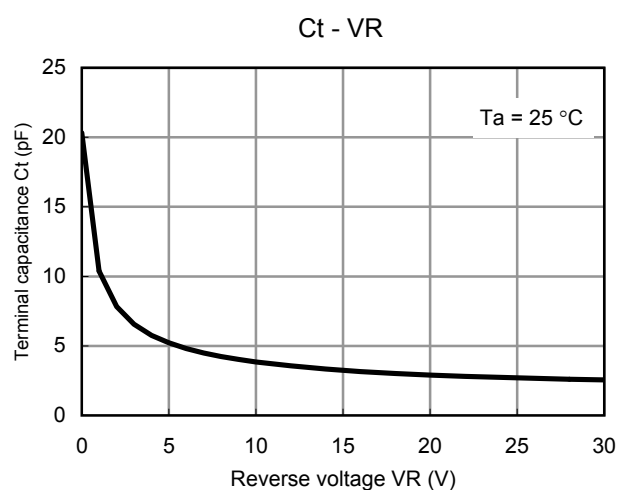
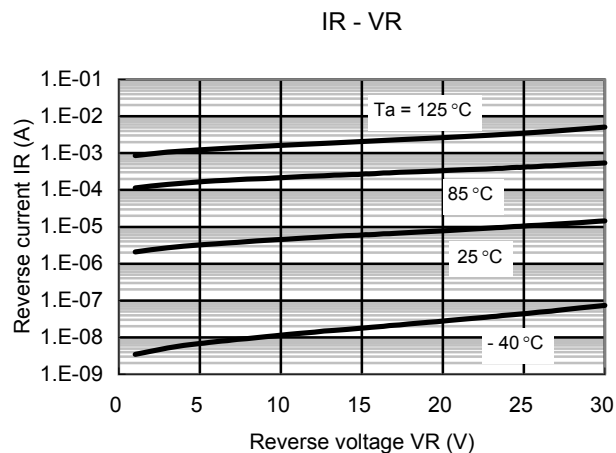
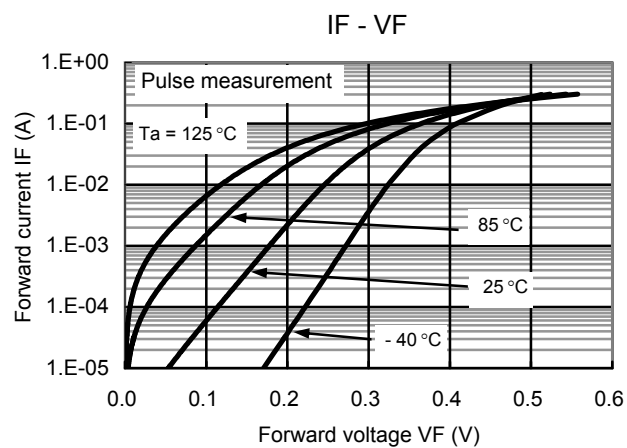


Output Pulse





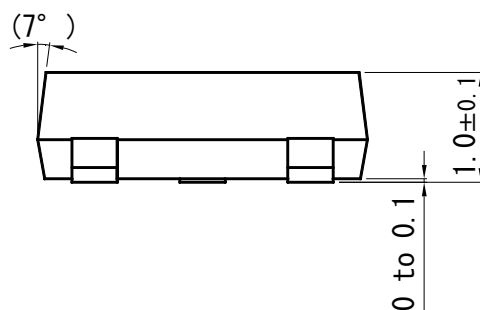
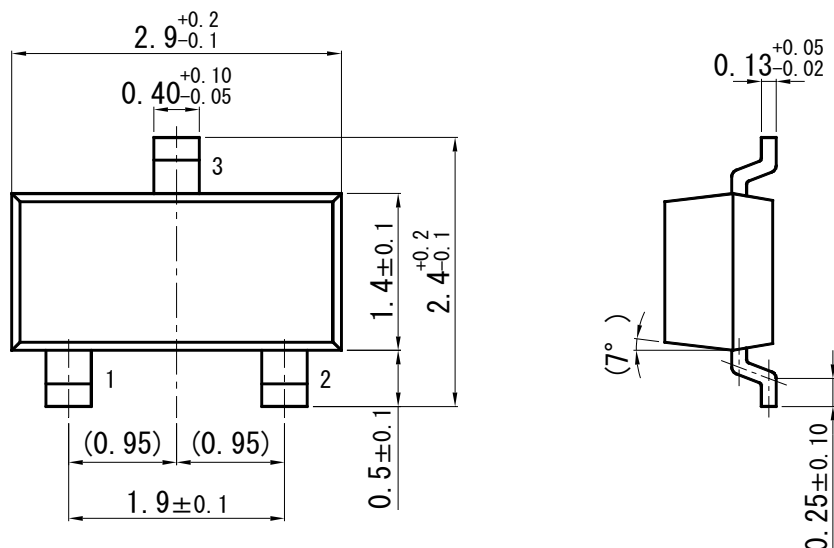
Technical Data ( reference )



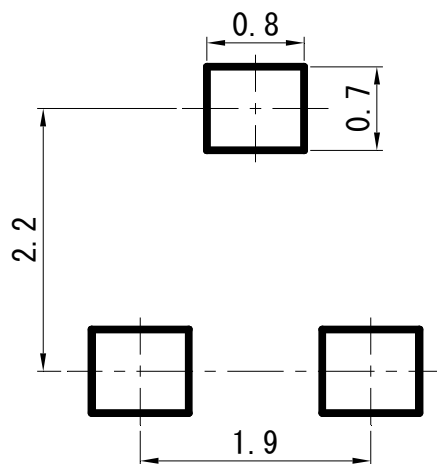


NMini3-R1-B

Unit : mm



■ Land Pattern (Reference) (Unit : mm)



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