

# 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

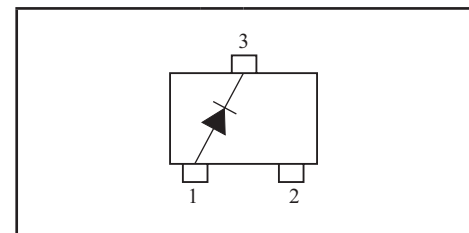
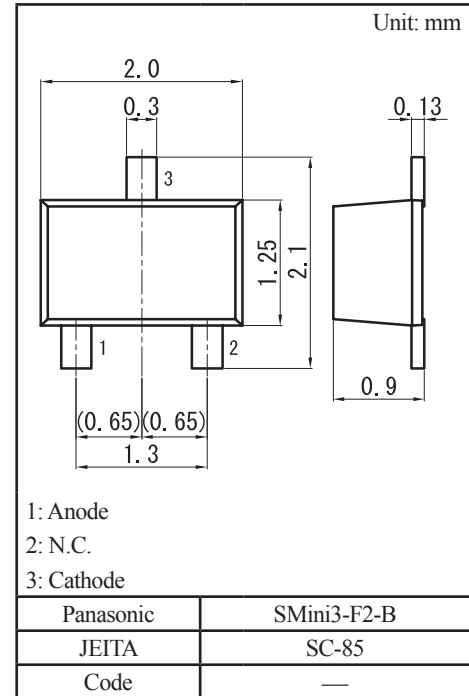
### ■ Packaging

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)



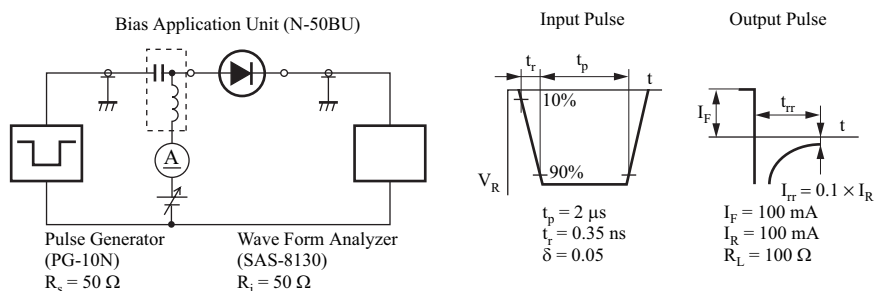
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

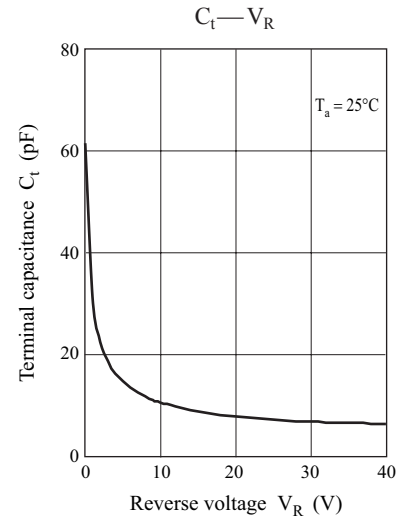
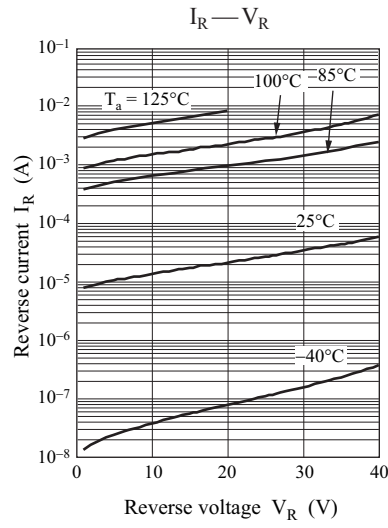
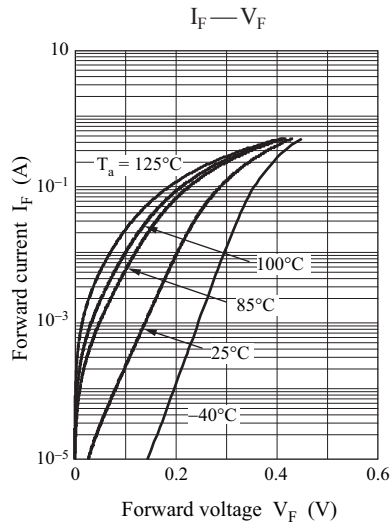
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 500 \text{ mA}$			0.55	V
Reverse current	$I_R$	$V_R = 35 \text{ V}$			100	$\mu\text{A}$
Terminal capacitance	$C_t$	$V_R = 10 \text{ V}, f = 1 \text{ MHz}$		12		pF
Reverse recovery time *1	$t_{rr}$	$I_F = I_R = 100 \text{ mA}, I_{rr}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

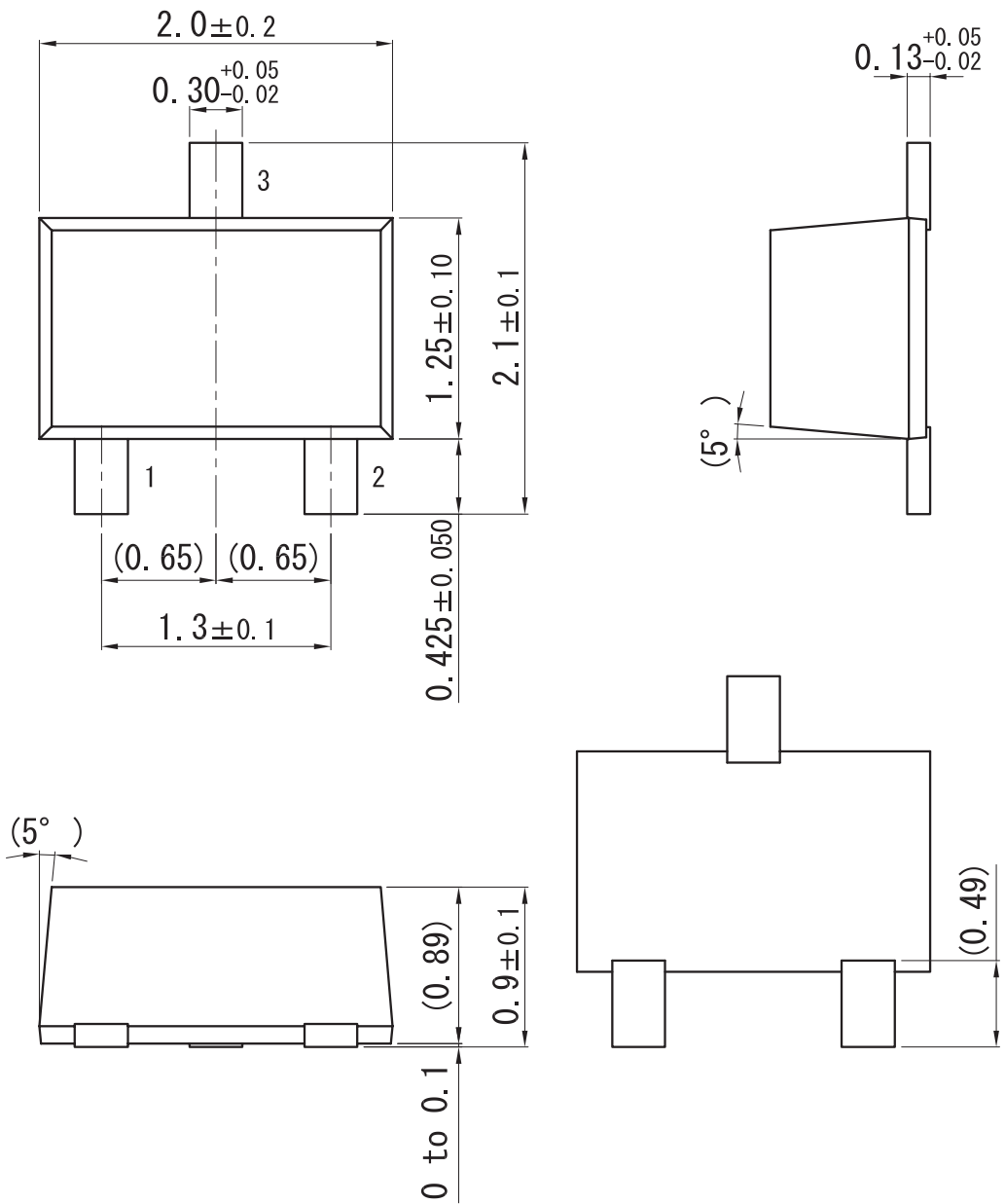
\*1:  $t_{rr}$  measurement circuit



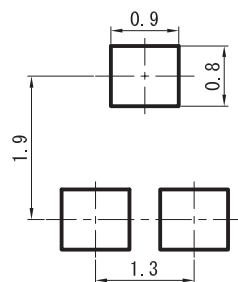


SMini3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)





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