

# PIN diode

## RN142S

**●Application**

High frequency switching

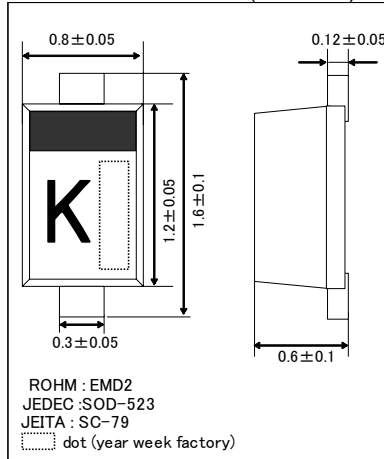
**●Features**

- 1) Ultra small mold type (EMD2)
- 2) High frequency resistance which is small and low capacity.

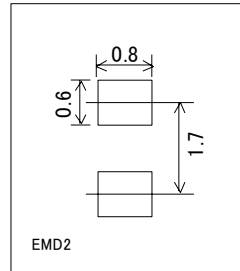
**●Construction**

Silicon epitaxial planar

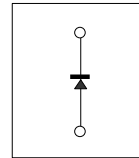
**●External dimensions (Unit : mm)**



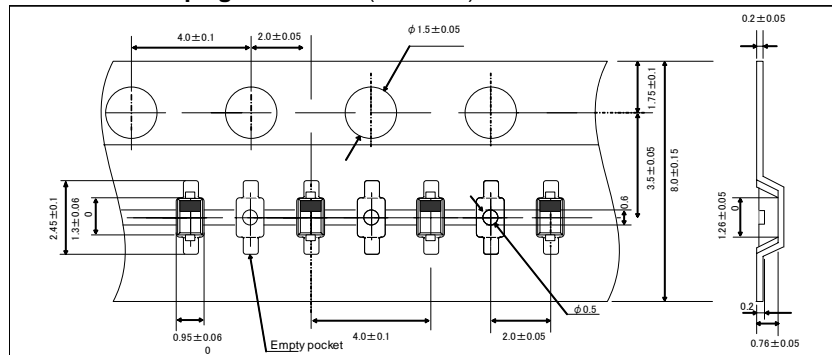
**●Land size figure (Unit : mm)**



**●Structure**



**●Taping dimensions (Unit : mm)**



**●Absolute maximum ratings (Ta=25°C)**

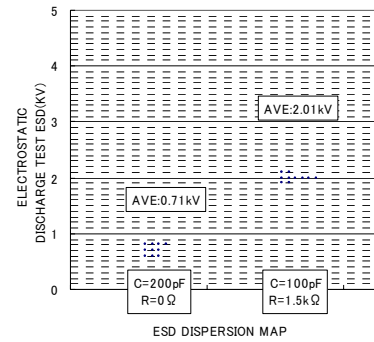
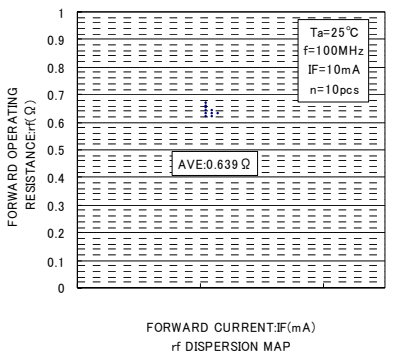
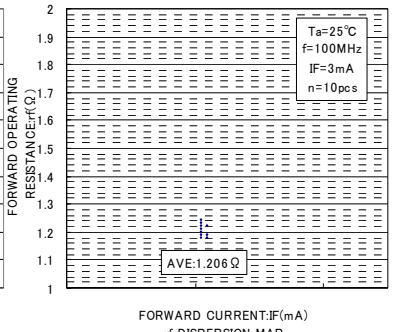
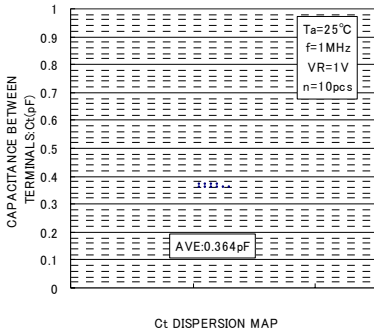
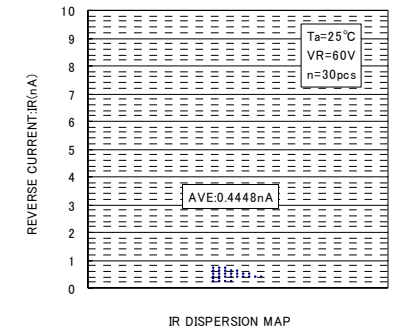
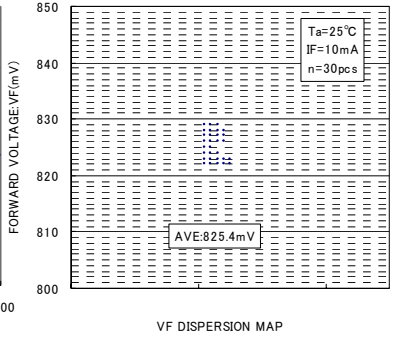
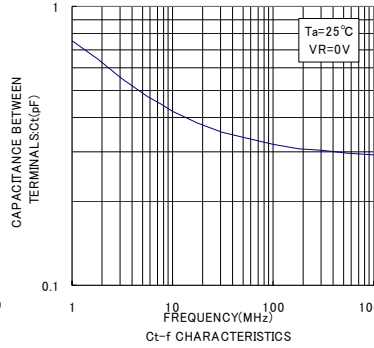
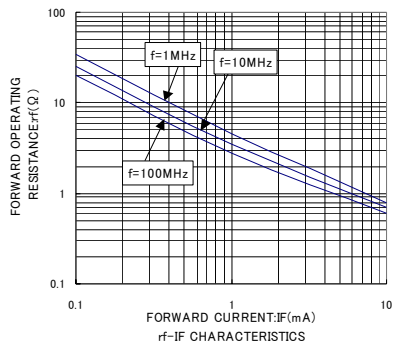
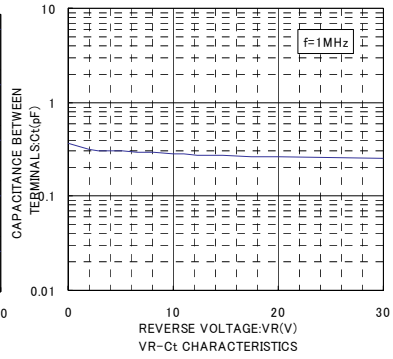
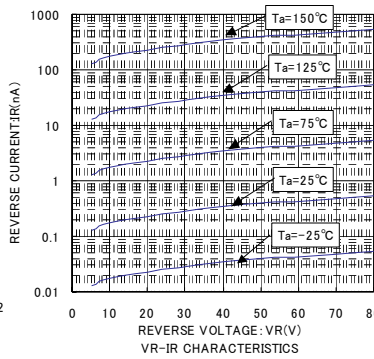
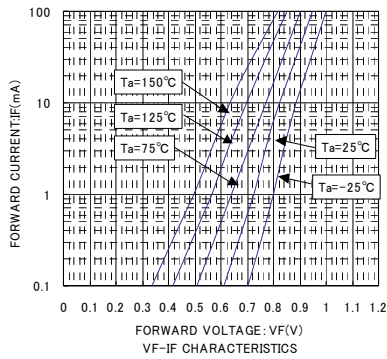
| Parameter            | Symbol    | Limits      | Unit |
|----------------------|-----------|-------------|------|
| Reverse voltage (DC) | $V_R$     | 60          | V    |
| Forward current (DC) | $I_F$     | 100         | mA   |
| Power dissipation    | $P_d$     | 150         | mW   |
| Junction temperature | $T_j$     | 150         | °C   |
| Storage temperature  | $T_{stg}$ | -55 to +150 | °C   |

**●Electrical characteristics (Ta=25°C)**

| Parameter                     | Symbol | Min. | Typ. | Max. | Unit          | Conditions                         |
|-------------------------------|--------|------|------|------|---------------|------------------------------------|
| Forward voltage               | $V_F$  | -    | -    | 1.00 | V             | $I_F=10\text{mA}$                  |
| Reverse current               | $I_R$  | -    | -    | 0.1  | $\mu\text{A}$ | $V_R=60\text{V}$                   |
| Capacitance between terminals | $C_t$  | -    | -    | 0.45 | pF            | $V_R=1.0\text{V}, f=1\text{MHz}$   |
| Forward resistance            | $R_f$  | -    | -    | 3    | $\Omega$      | $I_F=3\text{mA}, f=100\text{MHz}$  |
|                               |        | -    | -    | 2    | $\Omega$      | $I_F=10\text{mA}, f=100\text{MHz}$ |

Diodes

●Electrical characteristic curves (Ta=25°C)



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