

# MA2SV05

## Silicon epitaxial planar type

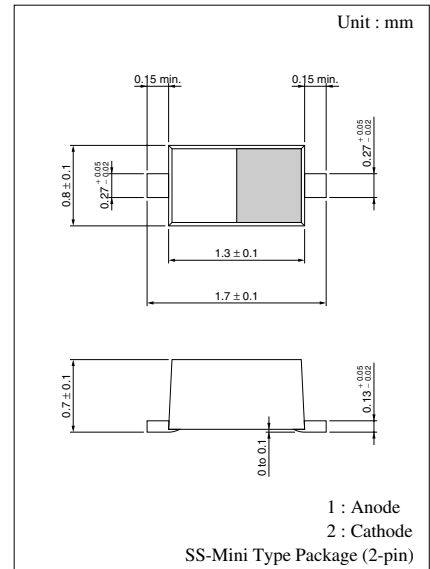
For VCO

### ■ Features

- Good linearity and large capacitance-ratio in  $C_D$ — $V_R$  relation
- Small series resistance  $r_D$
- SS-mini type package, allowing downsizing of equipment and automatic insertion through the taping package

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

| Parameter            | Symbol    | Rating      | Unit             |
|----------------------|-----------|-------------|------------------|
| Reverse voltage (DC) | $V_R$     | 10          | V                |
| Junction temperature | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature  | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |



Marking Symbol: 3A

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

| Parameter            | Symbol                | Conditions                             | Min  | Typ | Max  | Unit     |
|----------------------|-----------------------|--|------|-----|------|----------|
| Reverse current (DC) | $I_R$                 | $V_R = 5\text{ V}$                     |      |     | 10   | nA       |
| Diode capacitance    | $C_{D(1V)}$           | $V_R = 1\text{ V}, f = 1\text{ MHz}$   | 18.5 |     | 20.5 | pF       |
|                      | $C_{D(4V)}$           | $V_R = 4\text{ V}, f = 1\text{ MHz}$   | 3.6  |     | 4.1  | pF       |
| Capacitance ratio    | $C_{D(1V)}/C_{D(4V)}$ |  | 4.7  |     |      | —        |
| Series resistance*   | $r_D$                 | $V_R = 4\text{ V}, f = 470\text{ MHz}$ |      |     | 0.65 | $\Omega$ |

Note) 1. Rated input/output frequency: 470 MHz

2. \*:  $r_f$  measuring instrument: YHP MODEL 4191A RF IMPEDANCE ANALYZER