

# MA27V03

## Silicon epitaxial planar type

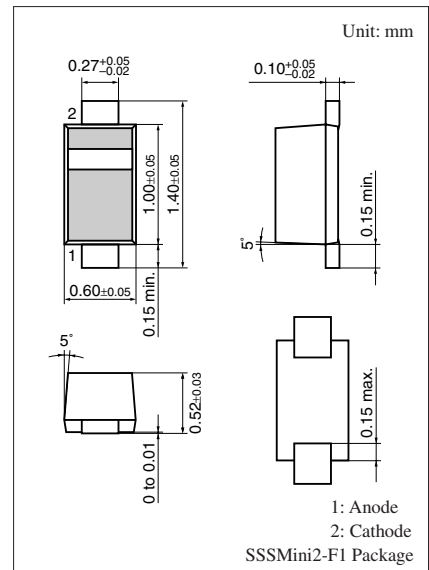
For VCO

### ■ Features

- Good linearity and large capacitance-ratio in  $C_D - V_R$  relation
- Small series resistance  $r_D$
- SSS-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      | $V_R$            | 6           | V                |
| Junction temperature | $T_j$            | 125         | $^\circ\text{C}$ |
| Storage temperature  | $T_{\text{stg}}$ | -55 to +125 | $^\circ\text{C}$ |



Marking Symbol: 3

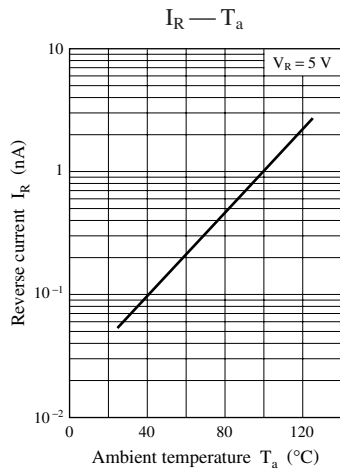
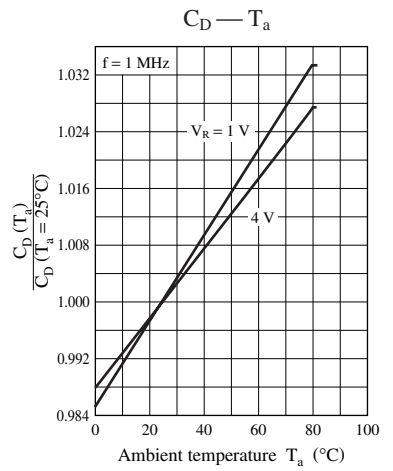
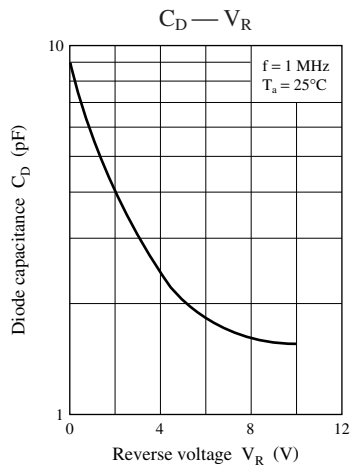
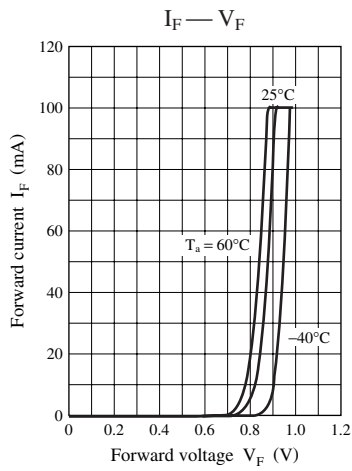
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter           | Symbol                  | Conditions                             | Min  | Typ | Max  | Unit     |
|---------------------|-------------------------|--|------|-----|------|----------|
| Reverse current     | $I_R$                   | $V_R = 5\text{ V}$                     |      |     | 10   | nA       |
| Diode capacitance   | $C_{D(1V)}$             | $V_R = 1\text{ V}, f = 1\text{ MHz}$   | 5.20 |     | 5.80 | pF       |
|                     | $C_{D(4V)}$             | $V_R = 4\text{ V}, f = 1\text{ MHz}$   | 2.10 |     | 2.58 |          |
| Capacitance ratio   | $C_{D(1V)} / C_{D(4V)}$ |  | 2.1  |     | 2.6  | —        |
| Series resistance * | $r_D$                   | $V_R = 4\text{ V}, f = 470\text{ MHz}$ |      |     | 0.3  | $\Omega$ |

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

2. Absolute frequency of input and output is 470 MHz.

3. \*: Measuring instrument; YHP MODEL 4191A RF IMPEDANCE ANALYZER



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