

# MA27V11

## Silicon epitaxial planar type

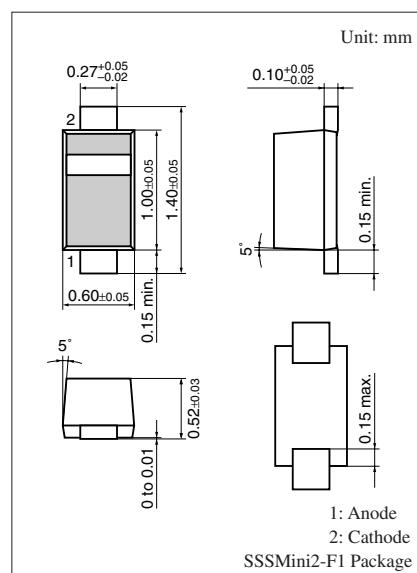
For VCO

### ■ Features

- Good linearity and large capacitance-ratio in  $C_D - V_R$  relation
- High frequency type by this low capacitance
- Ultraminiature Package 1.0 mm × 0.6 mm (height: 0.52 mm), optimum for high-density mounting and high-speed mounting

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

| Parameter            | Symbol           | Rating      | Unit             |
|----------------------|------------------|-------------|------------------|
| Reverse voltage      | $V_R$            | 8           | V                |
| Junction temperature | $T_j$            | 125         | $^\circ\text{C}$ |
| Storage temperature  | $T_{\text{stg}}$ | -55 to +125 | $^\circ\text{C}$ |



Marking Symbol: D

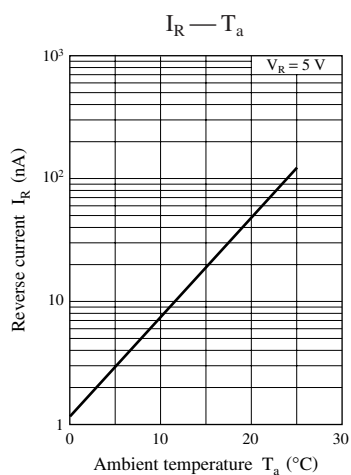
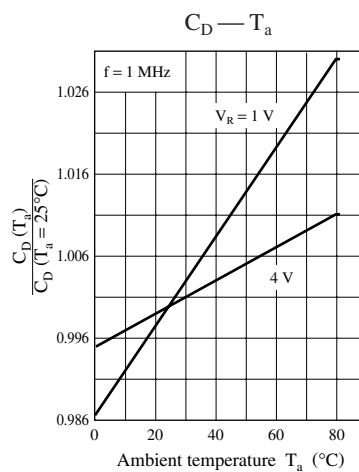
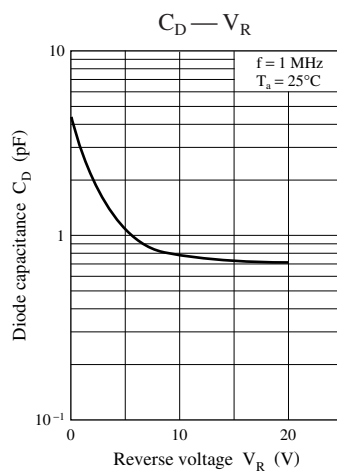
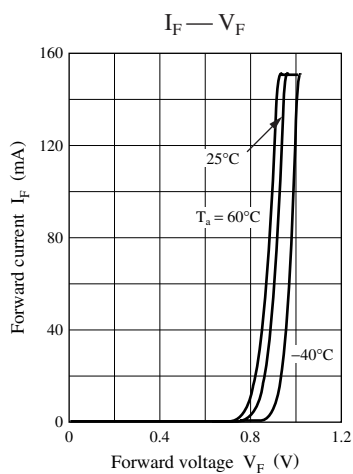
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter           | Symbol                  | Conditions                             | Min  | Typ | Max  | Unit     |
|---------------------|-------------------------|----------------------------------------|------|-----|------|----------|
| Reverse current     | $I_R$                   | $V_R = 5\text{ V}$                     |      |     | 10   | nA       |
| Diode capacitance   | $C_{D(1V)}$             | $V_R = 1\text{ V}, f = 1\text{ MHz}$   | 2.77 |     | 3.01 | pF       |
|                     | $C_{D(4V)}$             | $V_R = 4\text{ V}, f = 1\text{ MHz}$   | 1.23 |     | 1.34 |          |
| Capacitance ratio   | $C_{D(1V)} / C_{D(4V)}$ |                                        | 2.16 |     | 2.34 | —        |
| Series resistance * | $r_D$                   | $V_R = 4\text{ V}, f = 470\text{ MHz}$ |      |     | 0.35 | $\Omega$ |

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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