## **MA27V15**

## Silicon epitaxial planar type

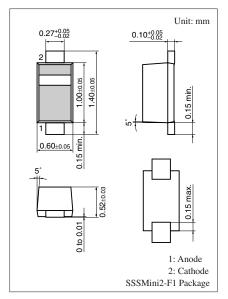
#### For VCO

#### ■ Features

- Ultraminiature Package 1.0 mm × 0.6 mm (height: 0.52 mm), optimum for high-density mounting and high-speed mounting
- $\bullet$  Good linearity and large capacitance-ratio in  $C_D V_R$  relation

### ■ Absolute Maximum Ratings $T_a = 25$ °C

| Parameter            | Symbol         | Rating      | Unit |
|----------------------|----------------|-------------|------|
| Reverse voltage      | $V_R$          | 6           | V    |
| Junction temperature | T <sub>j</sub> | 125         | °C   |
| Storage temperature  | $T_{stg}$      | -55 to +125 | °C   |



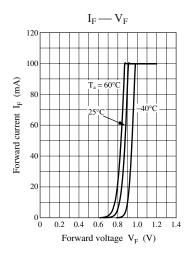
Marking Symbol: J

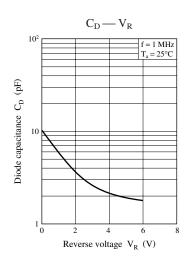
#### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

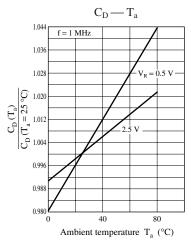
| Parameter           | Symbol                                 | Conditions                               | Min  | Тур | Max  | Unit |
|---------------------|--|--|------|-----|------|------|
| Reverse current     | $I_R$                                  | $V_R = 5 V$                              |      |     | 10   | nA   |
| Diode capacitance   | C <sub>D0.5V</sub>                     | $V_R = 0.5 \text{ V}, f = 1 \text{ MHz}$ | 7.30 |     | 7.91 | pF   |
|                     | C <sub>D2.5V</sub>                     | $V_R = 2.5 \text{ V}, f = 1 \text{ MHz}$ | 2.98 |     | 3.23 |      |
| Capacitance ratio   | C <sub>D0.5V</sub> /C <sub>D2.5V</sub> |  | 2.35 |     | 2.55 | _    |
| Series resistance * | $r_{\mathrm{D}}$                       | $V_R = 1 \text{ V, f} = 470 \text{ MHz}$ |      |     | 0.45 | Ω    |

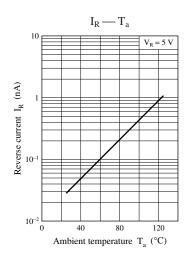
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring method for diodes.

- 2. Absolute frequency of input and output is 470 MHz.
- 3. \*: Measuring instrument: YHP MODEL 4191A RF IMPEDANCE ANALYZER









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