

MA27V18

Silicon epitaxial planar type

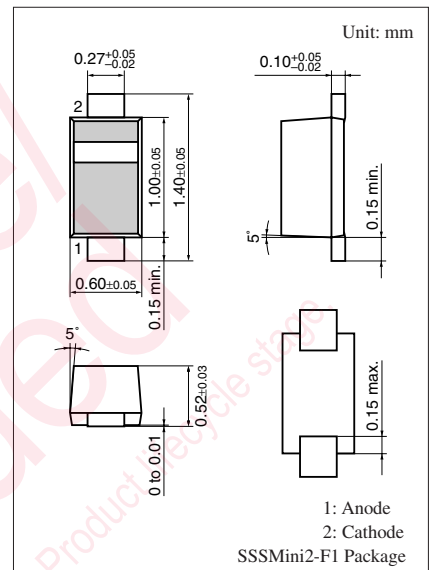
For VCO

■ Features

- Good linearity and large capacitance-ratio in $C_D - V_R$ relation
- Small series resistance r_D

■ 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_{stg} | -55 to +125 | $^\circ\text{C}$ |



Marking Symbol: P

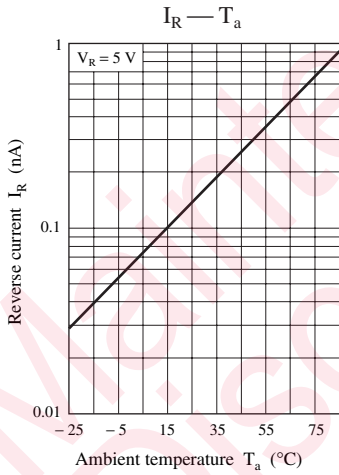
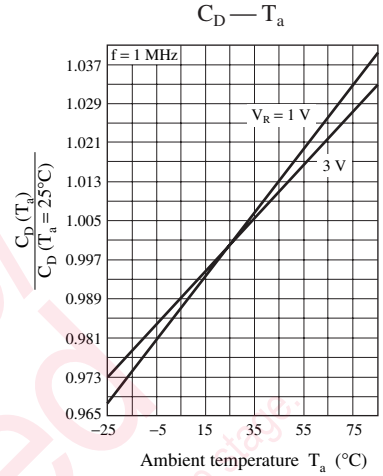
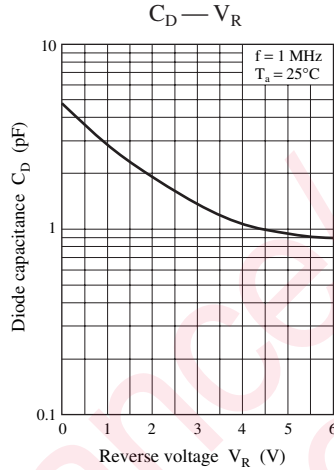
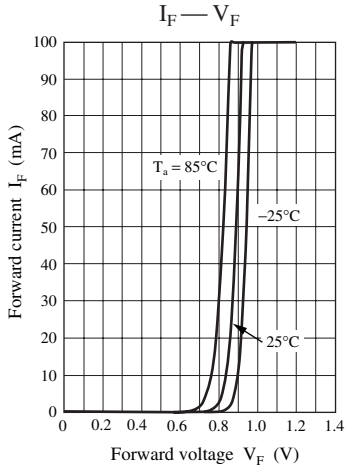
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---------------------|-----------------------|--|------|-----|------|----------|
| Reverse current | I_R | $V_R = 5\text{ V}$ | | | 10 | nA |
| Diode capacitance | $C_{D(1V)}$ | $V_R = 1\text{ V}, f = 1\text{ MHz}$ | 2.78 | | 3.00 | pF |
| | $C_{D(3V)}$ | $V_R = 3\text{ V}, f = 1\text{ MHz}$ | 1.31 | | 1.41 | |
| Capacitance ratio | $C_{D(1V)}/C_{D(3V)}$ | | 2.04 | | 2.21 | — |
| Series resistance * | r_D | $V_R = 3\text{ V}, f = 470\text{ MHz}$ | | | 0.3 | Ω |

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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