

MA27V15

Silicon epitaxial planar type

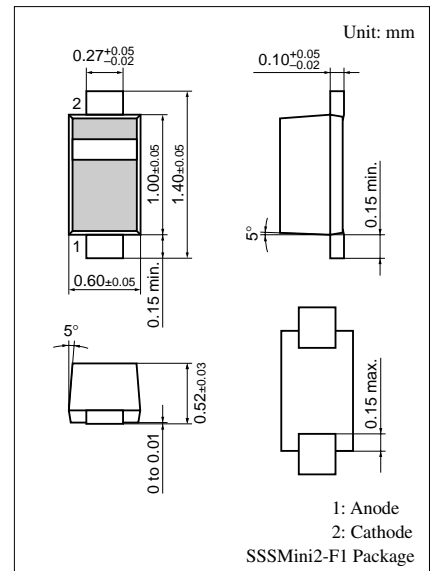
For VCO

■ Features

- Good linearity and large capacitance-ratio in $C_D - V_R$ relation
- 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 (DC) | V_R | 60 | V |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |



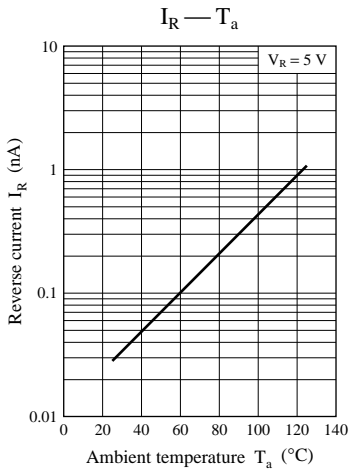
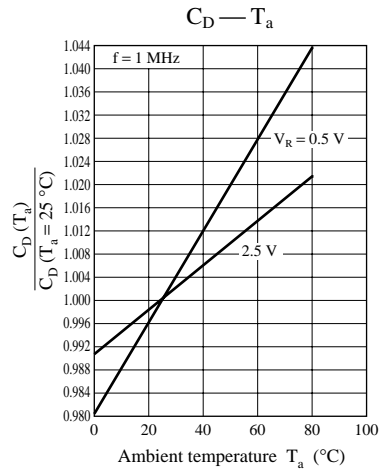
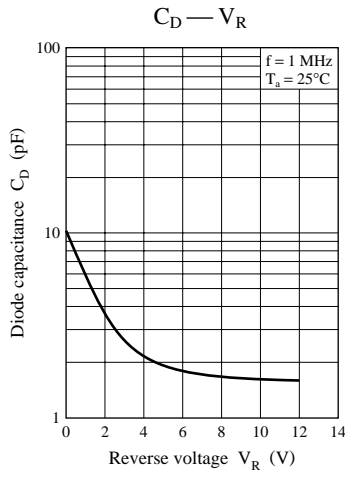
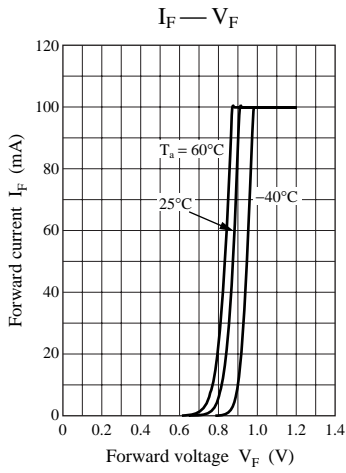
Marking Symbol: J

■ 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 | $C_{D(0.5V)}$ | $V_R = 0.5\text{ V}, f = 1\text{ MHz}$ | 7.30 | | 7.91 | pF |
| | $C_{D(2.5V)}$ | $V_R = 2.5\text{ V}, f = 1\text{ MHz}$ | 2.98 | | 3.23 | |
| Capacitance ratio | $C_{D(0.5V)}/C_{D(2.5V)}$ | | 2.35 | | 2.55 | — |
| Series resistance * | r_D | $V_R = 1\text{ V}, f = 470\text{ MHz}$ | | | 0.45 | Ω |

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

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



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