

# MA2S357

## Silicon epitaxial planar type

For CATV tuner

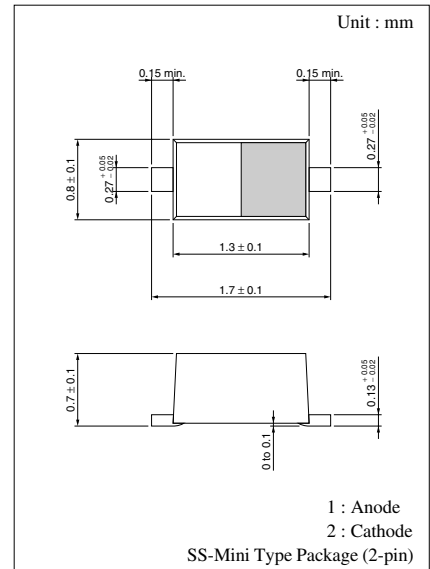
### ■ Features

- Large capacitance ratio
- Small series resistance  $r_D$
- SS-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 (DC)  | $V_R$     | 34          | V                |
| Peak reverse voltage* | $V_{RM}$  | 35          | V                |
| Junction temperature  | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature   | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

Note) \* :  $R_L = 10\text{ k}\Omega$



Marking Symbol: N

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

| Parameter                   | Symbol                 | Conditions                                   | Min   | Typ | Max   | Unit     |
|-----------------------------|------------------------|--|-------|-----|-------|----------|
| Reverse current (DC)        | $I_R$                  | $V_R = 30\text{ V}$                          |       |     | 10    | nA       |
| Diode capacitance           | $C_{D(0V)}^{*1}$       | $V_R = 0\text{ V}, f = 1\text{ MHz}$         | 58.0  |     |       | pF       |
|                             | $C_{D(2V)}$            | $V_R = 2\text{ V}, f = 1\text{ MHz}$         | 29.00 |     | 34.30 | pF       |
|                             | $C_{D(25V)}$           | $V_R = 25\text{ V}, f = 1\text{ MHz}$        | 2.53  |     | 2.92  | pF       |
|                             | $C_{D(10V)}$           | $V_R = 10\text{ V}, f = 1\text{ MHz}$        | 6.40  |     | 8.32  | pF       |
|                             | $C_{D(17V)}$           | $V_R = 17\text{ V}, f = 1\text{ MHz}$        | 3.50  |     | 4.35  | pF       |
| Capacitance ratio           | $C_{D(2V)}/C_{D(25V)}$ |  | 11.0  |     |       | —        |
| Diode capacitance deviation | $\Delta C$             | $C_{D(2V)}/C_{D(10V)}/C_{D(17V)}/C_{D(25V)}$ |       |     | 2.0   | %        |
| Series resistance*2         | $r_D$                  | $C_D = 9\text{ pF}, f = 470\text{ MHz}$      |       |     | 0.54  | $\Omega$ |

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

2. \*1 : Measurement at Low Signal Level

\*2 :  $r_f$  measuring instrument: YHP MODEL 4191A RF IMPEDANCE ANALYZER

