

# MA2Z393

## N type GaAs epitaxial planar type

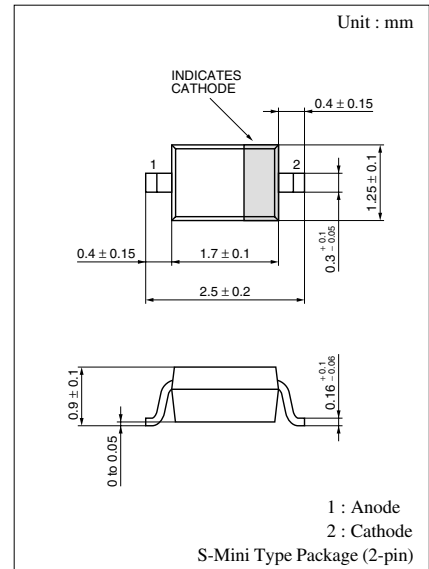
For VCO of a communications equipment

### ■ Features

- Small series resistance  $r_D$  and high Q value
- Large capacitance ratio during low-voltage operation

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

| Parameter            | Symbol    | Rating      | Unit             |
|----------------------|-----------|-------------|------------------|
| Reverse voltage (DC) | $V_R$     | 10          | V                |
| Forward current (DC) | $I_F$     | 50          | mA               |
| Junction temperature | $T_j$     | 125         | $^\circ\text{C}$ |
| Storage temperature  | $T_{stg}$ | -55 to +125 | $^\circ\text{C}$ |



Marking Symbol: 7P

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

| Parameter            | Symbol      | Conditions                                | Min | Typ  | Max | Unit     |
|----------------------|-------------|---|-----|------|-----|----------|
| Reverse current (DC) | $I_R$       | $V_R = 6\text{ V}$                        |     |      | 50  | nA       |
| Forward voltage (DC) | $V_F$       | $I_F = 500\text{ mA}$                     |     |      | 0.8 | V        |
| Reverse voltage (DC) | $V_R$       | $I_R = 1\ \mu\text{A}$                    | 10  |      |     | V        |
| Diode capacitance    | $C_{D(1V)}$ | $V_R = 1\text{ V}, f = 1\text{ MHz}$      | 8   | 10.5 | 13  | pF       |
|                      | $C_{D(4V)}$ | $V_R = 4\text{ V}, f = 1\text{ MHz}$      | 2.1 | 3.6  | 5.1 | pF       |
| Series resistance*   | $r_D$       | $C_D = 4.5\text{ pF}, f = 470\text{ MHz}$ |     | 0.3  | 0.4 | $\Omega$ |

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

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

