

MA6X344 (MA344)

Silicon epitaxial planar type

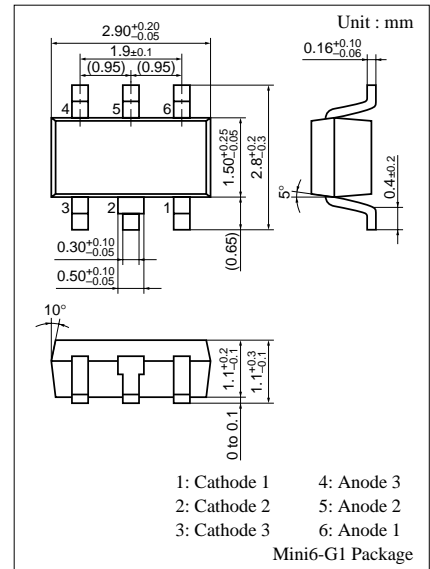
For UHF and VHF electronic tuners

■ Features

- Three isolated elements contained in one package
- Large capacitance variation ratio
- Small series resistance r_D
- Mini type package, allowing downsizing of equipment and automatic insertion through the taping package

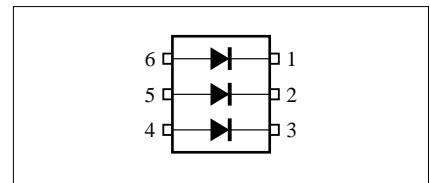
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|----------------------|-----------|-------------|------------------|
| Reverse voltage (DC) | V_R | 30 | V |
| Peak reverse voltage | V_{RM} | 34 | V |
| Forward current (DC) | I_F | 20 | mA |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |



Marking Symbol: 5P

Internal Connection



■ 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 | $C_{D(3V)}$ | $V_R = 3\text{ V}, f = 1\text{ MHz}$ | 11.233 | | 12.781 | pF |
| | $C_{D(25V)}$ | $V_R = 25\text{ V}, f = 1\text{ MHz}$ | 2.020 | | 2.367 | pF |
| | $C_{D(10V)}$ | $V_R = 10\text{ V}, f = 1\text{ MHz}$ | 4.358 | | 5.422 | pF |
| | $C_{D(17V)}$ | $V_R = 17\text{ V}, f = 1\text{ MHz}$ | 2.567 | | 3.100 | pF |
| Capacitance ratio | $C_{D(3V)}/C_{D(25V)}$ | | 4.60 | | 6.15 | — |
| Capacitance difference | $C_{D(17V)}/C_{D(25V)}$ | | 0.37 | | | pF |
| Diode capacitance deviation | ΔC | $C_{D(3V)(10V)(17V)(25V)}$ | | | Note)*1 | % |
| Series resistance*2 | r_D | $C_D = 9\text{ pF}, f = 470\text{ MHz}$ | 0.55 | | 0.75 | Ω |

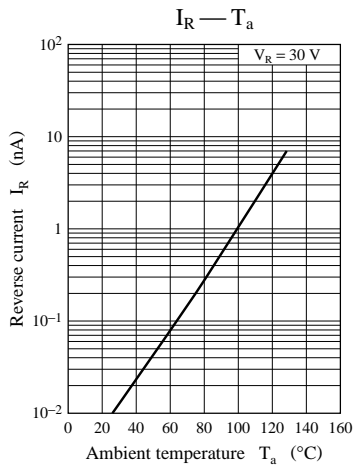
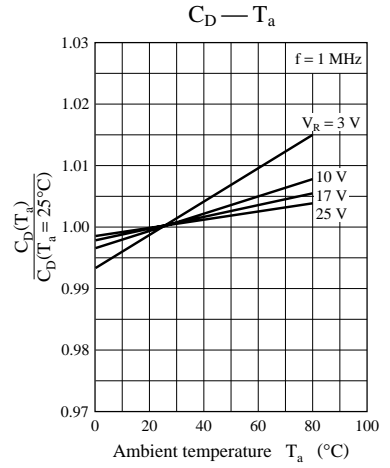
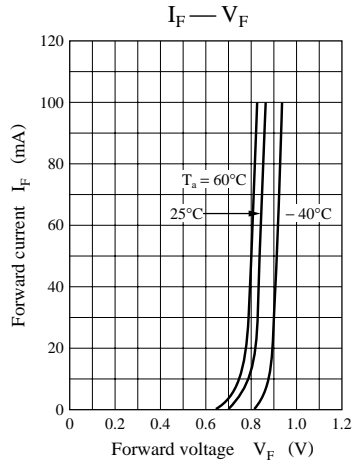
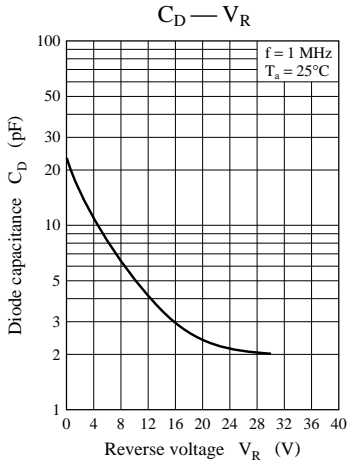
Note) 1. Rated input/output frequency: 470 MHz

2. Each characteristic is a standard for each diode.

3. *1 : Diode capacitance deviation is controlled to 2% for the rank B and 3% or less for the rank G.

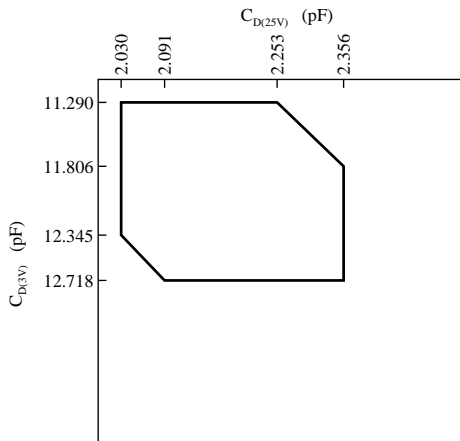
*2 : r_f measuring instrument: YHP MODEL 4191A RF IMPEDANCE ANALYZER

Note) The part number in the parenthesis shows conventional part number.

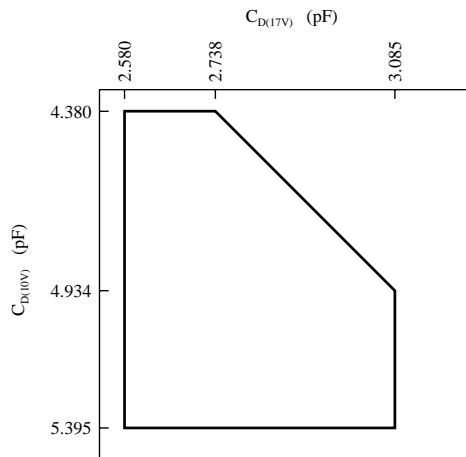


C_D rank classification

Primary rank classification



Secondary rank classification



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