

Surface Mount GAAs Tuning Varactor

MAVR-000202-12790T
Rev 1.0

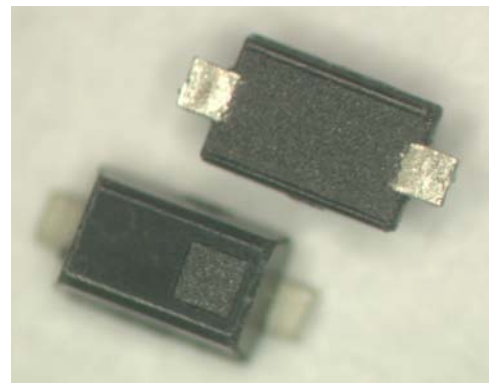
Features

- Hyperabrupt Varactor (Gamma of 1.25)
- Small Profile Surface Mount Package
- RoHS Compliant Package
- Supplied on Tape and Reel

Description

The MAVR-000202-12790T diode is a hyperabrupt tuning varactor with constant gamma of 1.25 from 2 to 20 volts. This device offers a large capacitance ratio and high quality factor.

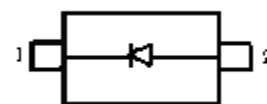
It is offered in the surface mount, RoHS compliant, plastic SC-79 package.



Applications

In addition to the electrical characteristics of the MAVR-000202-12790T the small package size and minimal package parasitics (0.6nH package inductance) make these parts attractive for wide bandwidth VCOs where the optimum combination of very wide tuning range and high quality factor is required.

Configurations (Topview)



SINGLE

Maximum Ratings @ + 25 ° C

| Parameter | Unit | Values |
|--|------|---|
| Operating Temperature | °C | -65 to +125 |
| Storage Temperature | °C | -65 to +125 |
| Power Dissipation | | 50mW @25°C, derate linearly to 0mW at maximum operating temperature |
| Reverse Voltage @ 25°C | V | 22 |
| Forward Current | mA | 50 |
| Soldering Temperature (Lead Free Part #) | °C | +260 for 5 sec. |

Specification Subject to Change Without Notice

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Electrical Specifications @ + 25° C

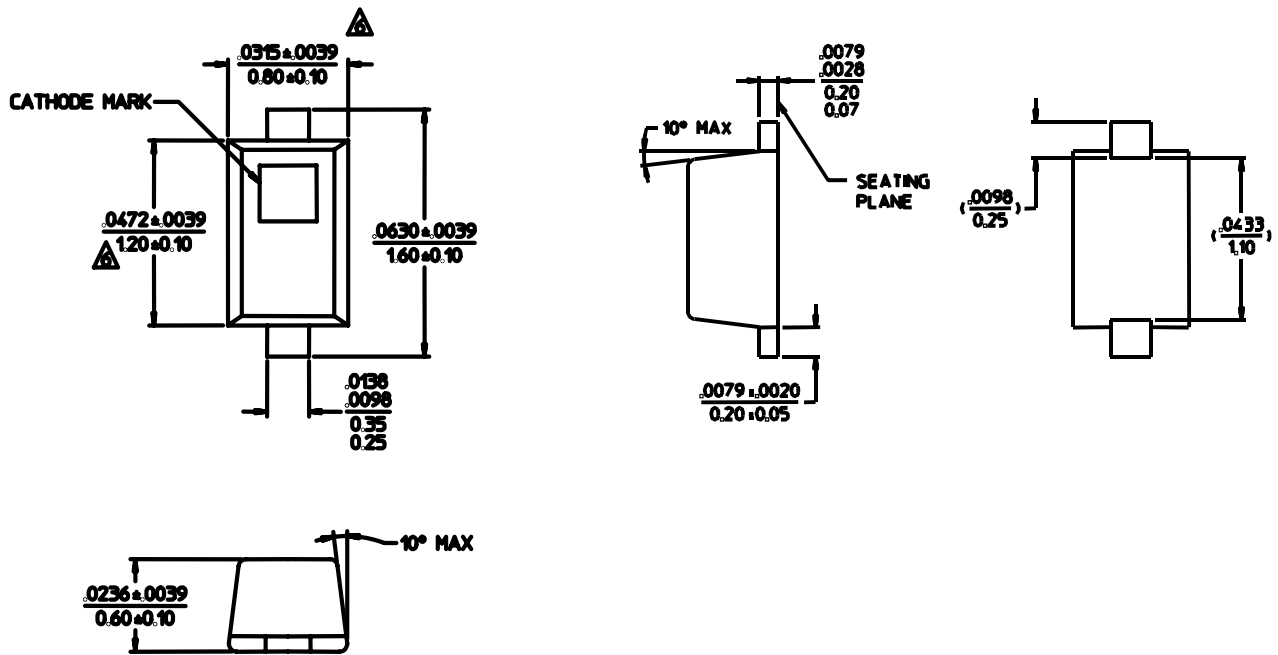
Gamma 1.13 – 1.38, VR = 2 to 20V

| Parameter | Condition | Symbol | Specification |
|--------------------------------|--------------------------------|--------|---------------|
| Breakdown Voltage | $I_R = 10 \mu A$ | V_B | 22 V min. |
| Reverse Leakage Current | $V_R = 16 V$ | I_R | 100 nA max. |
| Total Capacitance ¹ | $V_R = 4 V$ $f = 1 MHz$ | C_T | 2.7 – 3.3pF |
| Total Capacitance Ratio | $V_R = 4 V/20V$ $f = 1 MHz$ | - | 5.6 |

1. The values guaranteed for gamma are measured on unpackaged chips.

Dimensional Outline

SC-79 Package (Outline 1279)



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