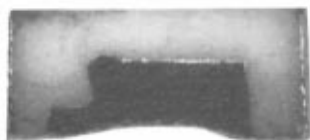


Gallium Arsenide Tuning Varactors

This range of epitaxial GaAs Schottky barrier variable capacitance diodes is designed primarily for electronic tuning of Gunn and transistor microwave oscillators. They have the advantage over silicon tuning diodes in that the required change in capacitance occurs over a lower tuning voltage range and, as such, is more compatible with Gunn and transistor power supplies. GaAs varactors also exhibit excellent low noise characteristics.

The total capacitance includes the encapsulation capacitance which is approximately 0.25 pF for outline 00, and 0.08 pF for outline 20. Diodes can be supplied to smaller total capacitance spreads to special order.

| Type | Minimum working voltage (V) | Total capacitance (pF) | Typical capacitance ratio | | Typical quality factor at 0 V, 10 GHz (Q) | Outline (see page 13) |
|---------|-----------------------------|------------------------|---------------------------|--------|---|-----------------------|
| | | | 0-20 V | 0-30 V | | |
| DC4301A | | 2.2 | | | 4.3 | |
| DC4302A | | 1.3 | | | 6.0 | |
| DC4303A | | 0.8 | | | 6.6 | |
| DC4304A | | 3.3 | | | 3.4 | |
| DC4305A | 20 | 4.7 | 4.5 | — | 3.3 | 00 |
| DC4301B | | 2.2 | | | 4.3 | |
| DC4302B | | 1.3 | | | 6.0 | |
| DC4303B | | 0.8 | | | 6.6 | |
| DC4304B | | 3.3 | | | 3.4 | |
| DC4305B | 30 | 4.7 | 4.5 | 6.0 | 3.3 | 00 |
| DC4371A | | 2.2 | | | 4.3 | |
| DC4372A | | 1.3 | | | 6.0 | |
| DC4373A | | 0.8 | | | 6.6 | |
| DC4374A | | 3.3 | | | 3.4 | |
| DC4375A | 20 | 4.7 | 4.5 | — | 3.3 | 20 |
| DC4371B | | 2.2 | | | 4.3 | |
| DC4372B | | 1.3 | | | 6.0 | |
| DC4373B | | 0.8 | | | 6.6 | |
| DC4374B | | 3.3 | | | 3.4 | |
| DC4375B | 30 | 4.7 | 4.5 | 6.0 | 3.3 | 20 |



Outline 20, 20 X actual size



Outline 00, 10 X actual size