

**GaAs Schottky Diode Offerings**
**May 2008**

VDI fabricates a broad range of GaAs Schottky diodes for applications ranging from 18 GHz to over 3 THz. This product line includes planar varistor diodes for mixer, frequency multiplication and detection applications from 18-1900 GHz, planar varactor diodes for frequency multiplication applications from 18-900 GHz and whisker contacted diodes (varistor and varactor) for applications to 3 THz and beyond. Our planar diodes are available as single devices or as multiple devices arranged in series, anti-series and anti-parallel configurations. These diodes provide state-of-the-art performance and reliability. Below is a pricing chart for our new MM-Wave Diodes and a specification for our single anode devices. Please call for additional information on other types of diodes.

| VDI MM-Wave Diode Chip Pricing |            |      |      |      |        |
|--------------------------------|------------|------|------|------|--------|
| Type \ Volume                  | Individual | 100+ | 200+ | 400+ | 1,000+ |
| Detector / Mixer               | \$50       | \$30 | \$20 | \$15 | \$10   |
| Zero-Bias Detector             | \$50       | \$30 | \$20 | \$15 | \$10   |
| Anti-parallel Mixer            | \$50       | \$30 | \$20 | \$15 | \$10   |
| Tee Diode                      | \$50       | \$30 | \$20 | \$15 | \$10   |
| Minimum Diode Order: \$2,000   |            |      |      |      |        |

**DIODE SPECIFICATION**

VDI P/N: G1SD36FG

Table I ELECTRICAL CHARACTERISTICS

|                               | Test Conditions          | Minimum Value | Maximum Value | Units    |
|-------------------------------|--------------------------|---------------|---------------|----------|
| $R_s$ Series Resistance       | $I_{max}=10$ mA          |               | 4             | $\Omega$ |
| $V_f$ Forward Turn-on Voltage | $I_f = 1$ $\mu$ A        | 450           | 500           | mV       |
| $\Delta V$                    | 100 $\mu$ A – 10 $\mu$ A |               | 70            | mV       |
| $V_R$ Reverse Breakdown       | $I_R = 10$ $\mu$ A       | 9             | 10            | V        |
| C: Total Capacitance          | V = 0V                   | 33            | 38            | fF       |

Table II PHYSICAL DIMENSIONS

|                     | Minimum Value | Maximum Value | Units   |
|---------------------|---------------|---------------|---------|
| Chip Length         | 590           | 600           | $\mu$ m |
| Chip Width          | 240           | 250           | $\mu$ m |
| Substrate Thickness | 90            | 100           | $\mu$ m |

