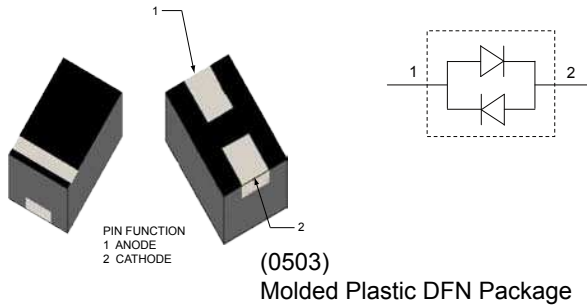


# SMGS21

## GaAs Schottky Diodes



### Description

The SMGS21 is a GaAs Schottky diode in a molded plastic DFN package. It is designed for broadband doubler and harmonic mixer. It is in anti-parallel pair configuration. It has a high cutoff frequency and can be used beyond 26.5 GHz.

### Features

- Small footprint, only 50 X 30 mils.
- Close matching of two diode pair characteristics.
- Very low parasitic inductance, series resistance and low parasitic capacitance.

### Maximum Ratings

| RATING       | LIMITS                                 | UNITS |
|--------------|--|-------|
| Pin          | 20 (at 25 °C)                          | dBm   |
| $V_R$        | 5                                      | V     |
| $I_F$        | 20                                     | mA    |
| $T_J$        | -65 to +175                            | °C    |
| $T_{STG}$    | -65 to +150                            | °C    |
| $T_{SOLDER}$ | 260 °C peak 5 sec per JEDEC J-STD-20C. |       |
| ESD          | Class 0 (Human Body Model)             |       |

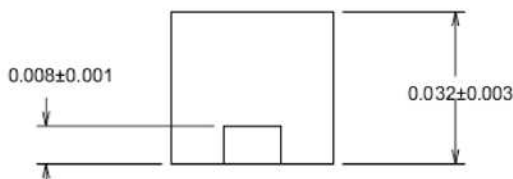
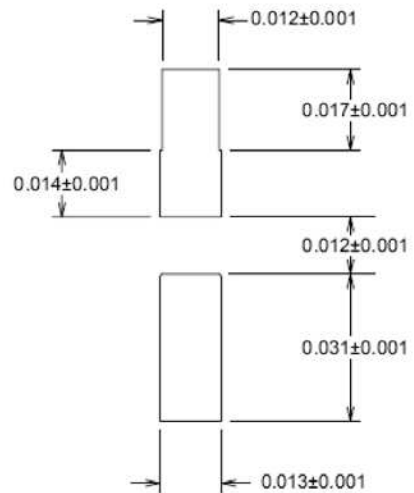
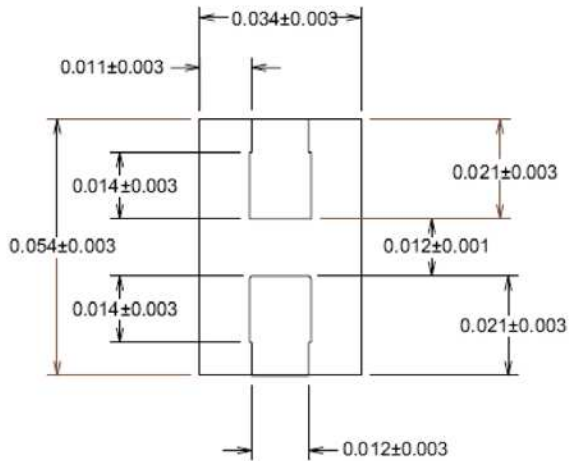
### Electrical Specifications, $T_c = +25\text{ }^\circ\text{C}$

| SYMBOL       | TEST CONDITIONS                       | MIN | TYPICAL | MAX  | UNITS    |
|--------------|---------------------------------------|-----|---------|------|----------|
| $V_F$        | $I_R = 1\text{ mA}$                   | 620 | –       | 760  | V        |
| $\Delta V_F$ | $I_F = 1\text{ mA}$                   | –   | –       | 20   | mV       |
| $C_T$        | $V_R = 0\text{ V}$ $F = 1\text{ MHz}$ |     | 0.15    | 0.18 | pF       |
| $R_s$        | $I_F = 5\text{ mA}$                   | –   | –       | 7.0  | $\Omega$ |



**Package Outline**

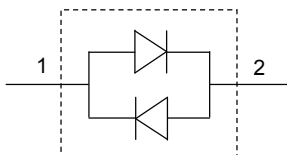
0503



**SOLDERING FOOTPRINT**

All Dimensions +/-0.001 Inch

**Electrical Schematic**



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ISO 9001:2008



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