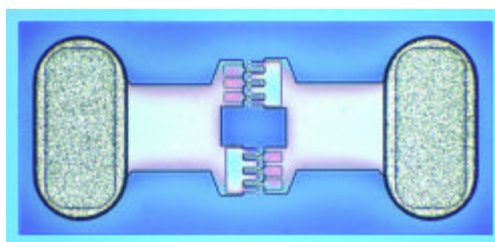




Agilent HSCH-9551 GaAs Schottky Diode Antiparallel Pair

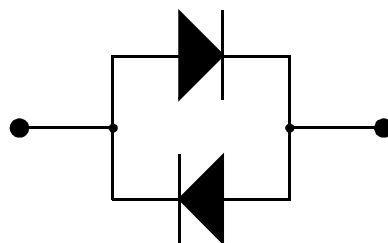
Data Sheet



Chip Size:	$620 \times 325 \mu\text{m}$ (24.4×12.8 mils)
Chip Size Tolerance:	$\pm 10 \mu\text{m}$ (± 0.4 mils)
Chip Thickness:	$100 \mu\text{m}$ (4 mils)
Chip Thickness Tolerance:	$\pm 15 \mu\text{m}$ (± 0.6 mils)
Bond Pad Sizes:	$100 \times 200 \mu\text{m}$ (3.9×7.9 mils)

Features

- Low Junction Capacitance
– typically 40 fF
- Low Series Resistance
– typically 3Ω
- Large bond pads suitable for automated wire-bonding or flip-chip assembly
- Polyimide scratch protection



Description

The HSCH-9551 is an integrated antiparallel pair of GaAs Schottky barrier diodes. It is a beamless version of the HSCH-9251 antiparallel pair beam lead diode.

Applications

The HSCH-9551 is a high-performance millimeter wave diode that can be used as a sub-harmonically pumped mixer or frequency multiplier in micro-wave and millimeter wave transceivers.

Specifications

- V_F (1 mA): 700-800 mV
- V_F (10 mA): 800-850 mV
- R_S (5 mA): $< 6 \Omega$
- C_J (per diode): < 0.050 pF

Assembly Techniques

GaAs Schottky diodes are ESD sensitive. ESD preventive measures must be employed in all aspects of storage, handling, and assembly.

ESD precautions, handling considerations, die attach and bond-

ing methods are critical factors in successful diode performance and reliability.

Agilent application note #54, "GaAs MMIC ESD, Die Attach and Bonding Guidelines" provides basic information on these subjects.

This data sheet contains a variety of typical and guaranteed performance data. The information supplied should not be interpreted as a complete list of circuit specifications. In this data sheet the term *typical* refers to the 50th percentile performance. For additional information contact your local Agilent Technologies sales representative.



Notes: