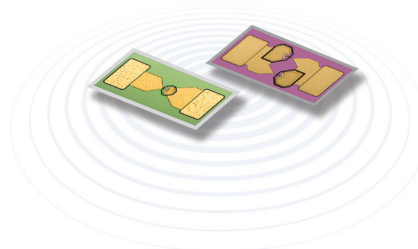
GaAs Schottky Diode Flip Chips for Mixer and Detector Applications

Features



- Designed for high volume designs
- High frequency (20–100 GHz)
- Exceeds environmental requirements for MIC and hybrid applications
- Designed for low junction capacitance and low series resistance
- Applications include PCN mixers and circuits, as well as low power, fast switching
- Low parasitic flip chip configuration
- Available lead (Pb)-free, RoHS-compliant, and Green™

Description

This series of Skyworks GaAs Schottky barrier flip chip diodes produces excellent high frequency performance up to millimeter wave range in a mechanically robust, small form factor. The series is comprised of a single junction device, DMK2790-000, and an antiparallel pair, DMK2308-000. These products offer very low series resistance and capacitance typically available only in beam lead devices, but without the fragility of beam leads. The DMK2308-000 antiparallel pair is well suited for use in subharmonically-pumped mixers or in limiting circuits.

These diodes are designed to be mounted on hard or soft substrate printed circuit boards with conductive epoxy or solder. Typical applications include mixers or detectors in point-to-point millimeterwave radios, collision avoidance automotive radars, adaptive cruise control radar systems, etc.

GaAs Schottky Diode Flip Chips

Part Number	Min. C_{T0} V_R = 0 V, f = 1 MHz (pF)	Max. C_{T0} V_R = 0 V, f = 1 MHz (pF)	Min. V_F @ I_F = 1 mA (mV)	Max. V_F @ I_F = 1 mA (mV)	Max. R_S @ 10 mA (Ω)	Min. V_B @ I_R = 10 µA (V)
DMK2308-000	0.04	0.07	650	750	7	3
DMK2790-000	0.04	0.07	650	750	7	3

Skyworks Green™ products are lead (Pb)-free, Restriction of Hazardous Substances (RoHS)-compliant, conform to the EIA/EICTA/JEITA Joint Industry Guide (JIG) Level A guidelines, and are free from antimony trioxide, and brominated flame retardants.