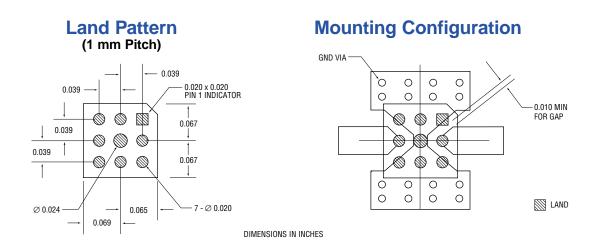


## Land Grid Array (LGA) Handling, Mounting and Thermal Considerations

- The LGA does not require any special handling considerations. The usual ESD precautions must be followed when handling any MESFET devices. The LGA works well with industry standard SMT equipment, and a pin one indicator is provided on both the top and bottom of the package.
- The LGA mounting is very similar to other surface mount devices. The high frequency of the device does add some complexity to the input/output solder mask layout. In a DC or digital device the solder mask would simply cover all traces except the land pattern, but the solder mask will change the input/output line impedance at higher frequencies. A strip of solder mask on the order of six mils wide on the input/output traces next to the land pattern will control solder from flowing away from the interface with minimal effect on the line impedance. See INPUT/OUTPUT SOLDER DAM below. The industry standard for solder mask around the other solder pads is required to ensure sufficient solder at the interface.
- The LGA requires some heat-sinking surface on the circuit board. See MOUNTING CONFIGURATION below. Note that the ground copper is continuous under the part out to the ground vias. The larger the heat sinking area the better the thermal properties, and it is often possible to continue the ground copper out some distance. The heat-sinking surface must be at least as large as the part and a minimum of eight ground vias are required.



## **Input/Output Solder Dam**

