

HANDLING

AMCOM's CU Packaged Power FETs are very sensitive to electrostatic discharge (ESD). AMCOM ships all Power FETs in electrostatic protection packaging. Users must be very careful when handling the FETs and should be properly grounded by a wrist strap or equivalent technique.

AMCOM's CU Packaged Power FETs are specially designed packaged FET with two straight leads and a flange in a drop-in mounting style. The flange at the bottom of the package serves simultaneously as DC ground, RF ground, and thermal path. Personnel handling the FETs should be very careful to avoid destruction of the coplanarity between the leads and base. **Be sure to pay careful attention to the handling precautions during removal.**

PACKAGE TYPE "CU" MOUNTING

AMCOM's "CU" type package (Figure 1) is specially designed for drop-in placement. The package has a flange at the bottom of the package and two straight RF input and output leads. The flange is designed for direct screw mounting to the carrier underneath the device for better heat dissipation. The RF input and output should be soldered to the microwave circuit on the PC board.

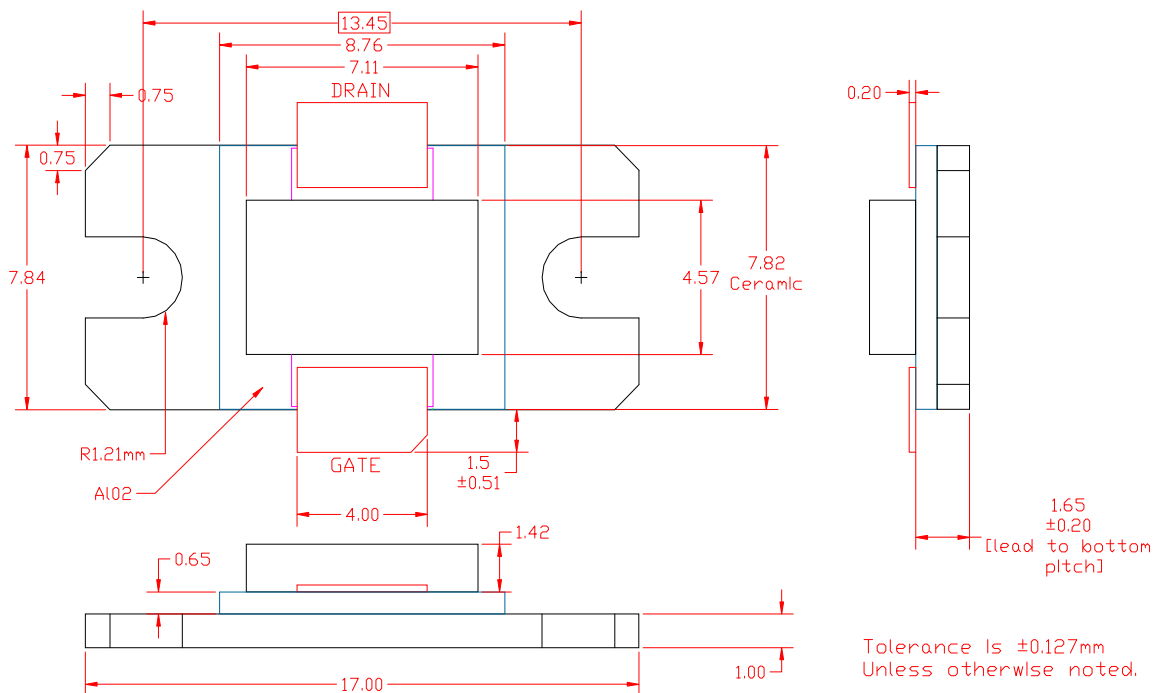


Figure 1. AMCOM FET in CU package (Unit: mm)

SOLDER SELECTION

AMCOM's CU Packaged Power FETs are RoHS compliant. We recommend R276 NC with a composition of Sn 96.5% / Ag 3% / Cu 0.5%. The melting point is 221°C.

RECOMMENDED MOUNTING PROCEDURES

- Screw the flange at the bottom of the package all the way down to the carrier underneath the device.
- Solder the RF input and output leads to the microwave circuits on the PCB.
- Make sure that solder flows to the edge of the PCB underneath the leads to reduce the parasitic inductance.

GENERAL PRECAUTIONS

- Always preheat the FET (150°C for 2 minutes) to minimize the thermal shock and mechanical stress.
- The temperature variation from the preheat stage to the maximum temperature should be less than 100°C.
- Never exceed 230°C for 20 seconds, 220°C for 30 seconds and 200°C for 60 seconds.
- The device should be allowed to cool naturally for at least 3 minutes. Forced cooling may result in failure due to mechanical stress.

Never apply mechanical stress or shock during cooling.