

Although volume production of graphene film is still challenging, researchers from UC Riverside and UC Los Angeles, pioneer graphene ribbons' capability on ESD interconnects. Their experimental data, from more than 2000 tested samples, show that although the critical current density (before failure) of different graphene ribbon splits is typical more than 10^8 A/cm², using short (10um) monolayer graphene strips guarantees higher critical current density, as compared to the long (20~50um)/bilayer counterparts.

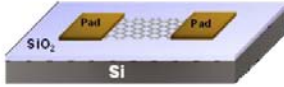


Fig. A. The graphene ribbon wire structure for ESD testing.

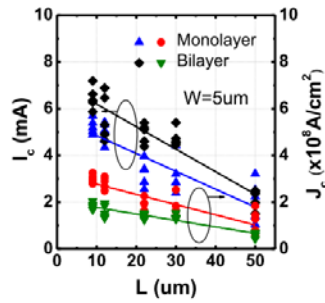


Fig. B. Bilayer graphene ribbon (GR) wires have higher critical current (I_c) but lower critical current density (J_c), compared to its monolayer GR counterparts.