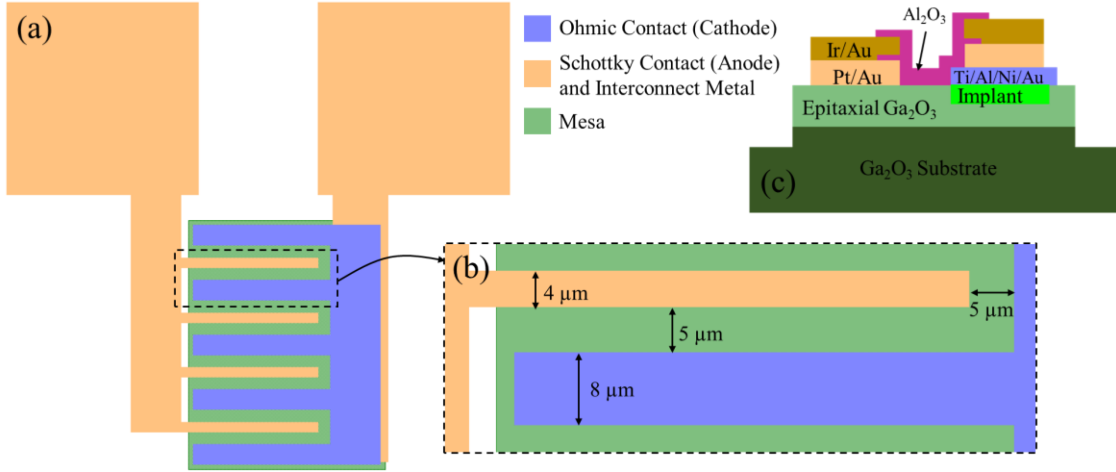

Figure 1: (a) Device layout with critical features. (b) Interdigitated contacts and current-carrying region dimensions. (c) Final device cross section.

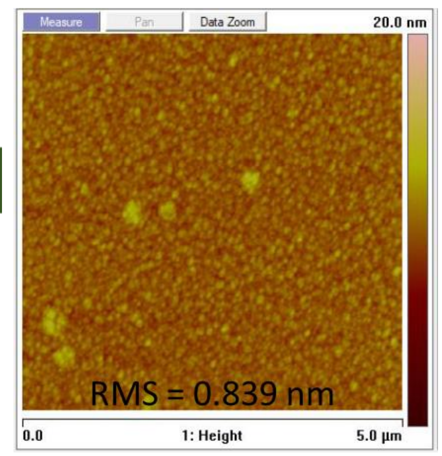

Figure 2: AFM image of the β-Ga_2O_3 epitaxial layer before fabrication.

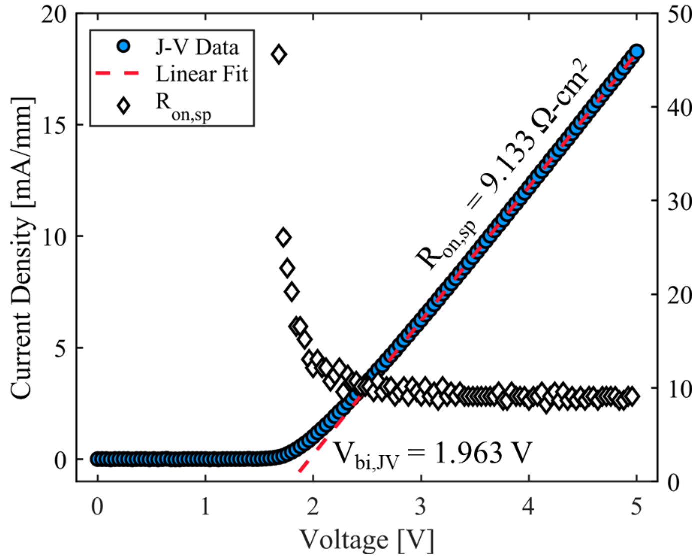

Figure 3: Forward bias J-V characteristics of the device under test.

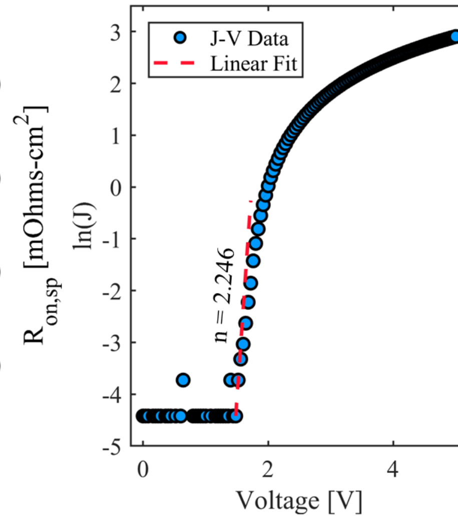

Figure 4: Forward bias, ln(J)-V response and extracted ideality factor.

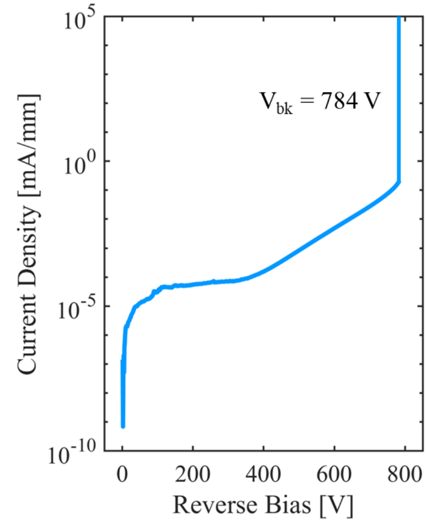

Figure 5: Reverse bias breakdown measurement.

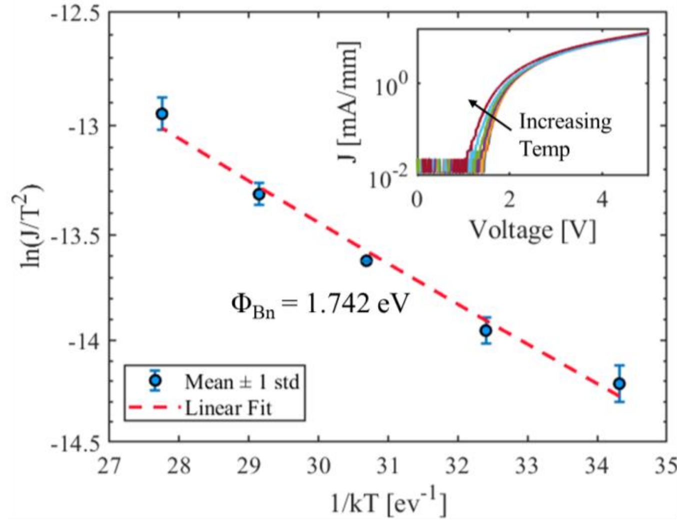

Figure 5: Richardson plot and inset J-V at various temperatures. The device tested here is adjacent to the breakdown test device.

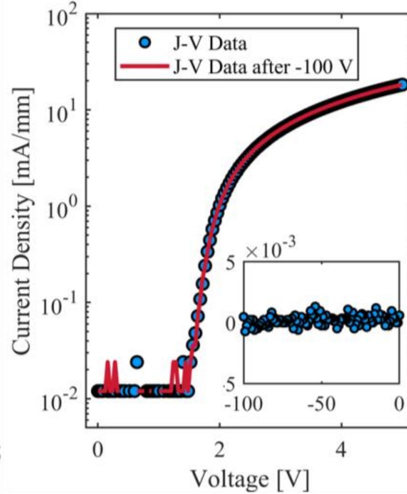

Figure 6: J-V response before and after -100 V, with the -100 V response inset.

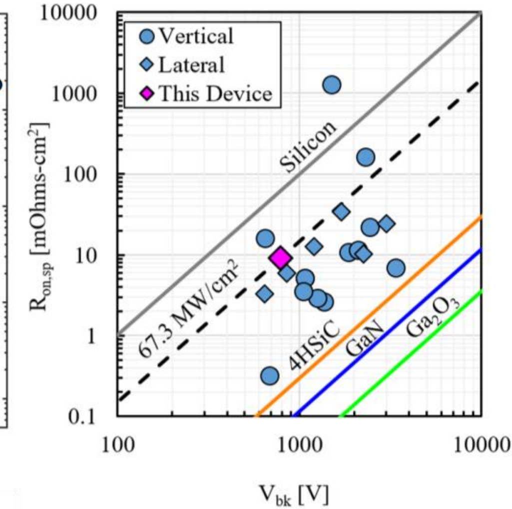

Figure 7: PFOM comparison of β-Ga_2O_3 SBDs from existing literature to the device under test.

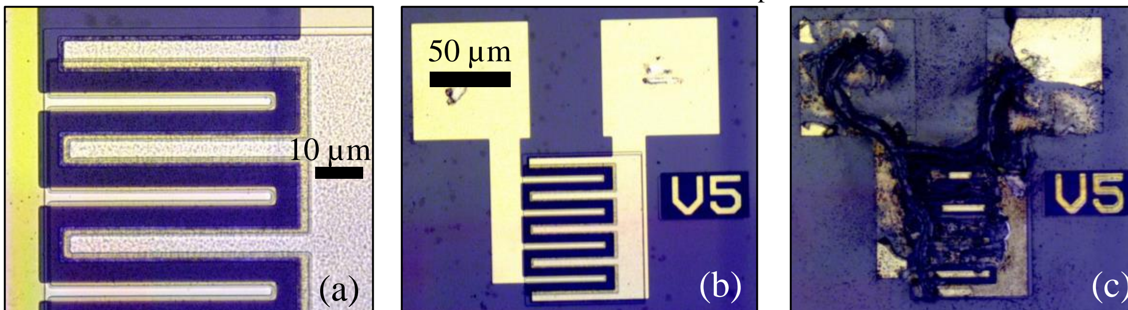

Figure 8: Optical microscope images of a representative device (a) verifying the interdigitated contacts, and (b) before breakdown. (c) The device under test after the breakdown measurement.