

Technology progress in Silicon Carbide (SiC) Power Devices

Wide bandgap (WBG) power semiconductor devices, represented by silicon carbide (SiC) and gallium nitride (GaN), have been investigated extensively in the past two decades. And there are many devices commercially available now. Owing to the intrinsic material advantages of the WBG semiconductor over the silicon (Si), WBG power semiconductor devices can operate at higher voltage, higher switching frequency, and higher temperature. This seminar will review the technology progress of WBG semiconductor power devices, mainly focusing on SiC devices. The design and fabrication challenges and future development trends will be discussed.