

# Comparative Study and Analysis of Si/SiC and GaN/AlGaN Based Pin Diode Photo Sensors

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**Abstract:** *The research work has been done through a comparative study and analysis of Si, SiC and GaN, AlGaN based pin diode photo sensors. The devices which are made up of grapheme based materials are actually grapheme based materials which have the properties of good optical and good electrical which can be used as photo detection. So the photo sensors made up of grapheme based materials are expected to perform in high speed opto electronic devices. The author has done a comparison in the analysis of Forward characteristics, Carrier mobility, reverse recovery time, isolation loss and insertion loss of the exotic pin based photo detectors of GaN/ AlGaN and Si SiC based devices for opto electronics applications.*

**Keywords:** Microstrip Patch Antenna (MPA), Ultra-Wide Band (UWB), WLAN, Antenna Design.

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