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**Power Loss Calculation for IGBT and SiC MOSFET**

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**Abstract**

The efficiency of any system is mainly depended on power loss incurred in the devices used in it. In power converter circuits the main contribution for power loss is by the power switches used for converting signal. In this paper an attempt is made to describe the method available to find the power losses in converter circuit due to IGBT and SiC MOSFET. It is observed in the literature that the conduction losses for IGBT is lesser than MOSFET with same voltage and current the rating whereas the switching losses are greater in IGBT compared to MOSFET. The calculations performed in the paper shows that SiC MOSFET supersedes performance of IGBT and MOSFET and hence best suitable for high power and high switching frequency application.

**Key words:**

Power switch, Power loss, Conduction loss, switching loss.

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