

We use a ts35 series 100v standard diode package in a bridgeless application .Two of the diodes in the 4 diode pack will conduct 100khz switching current in each half cycle. The current thru one diode in a switching period level and half cycle level is enclosed in the picture.

<http://www.taiwansemi.com/en/products/details/TS35P07G>

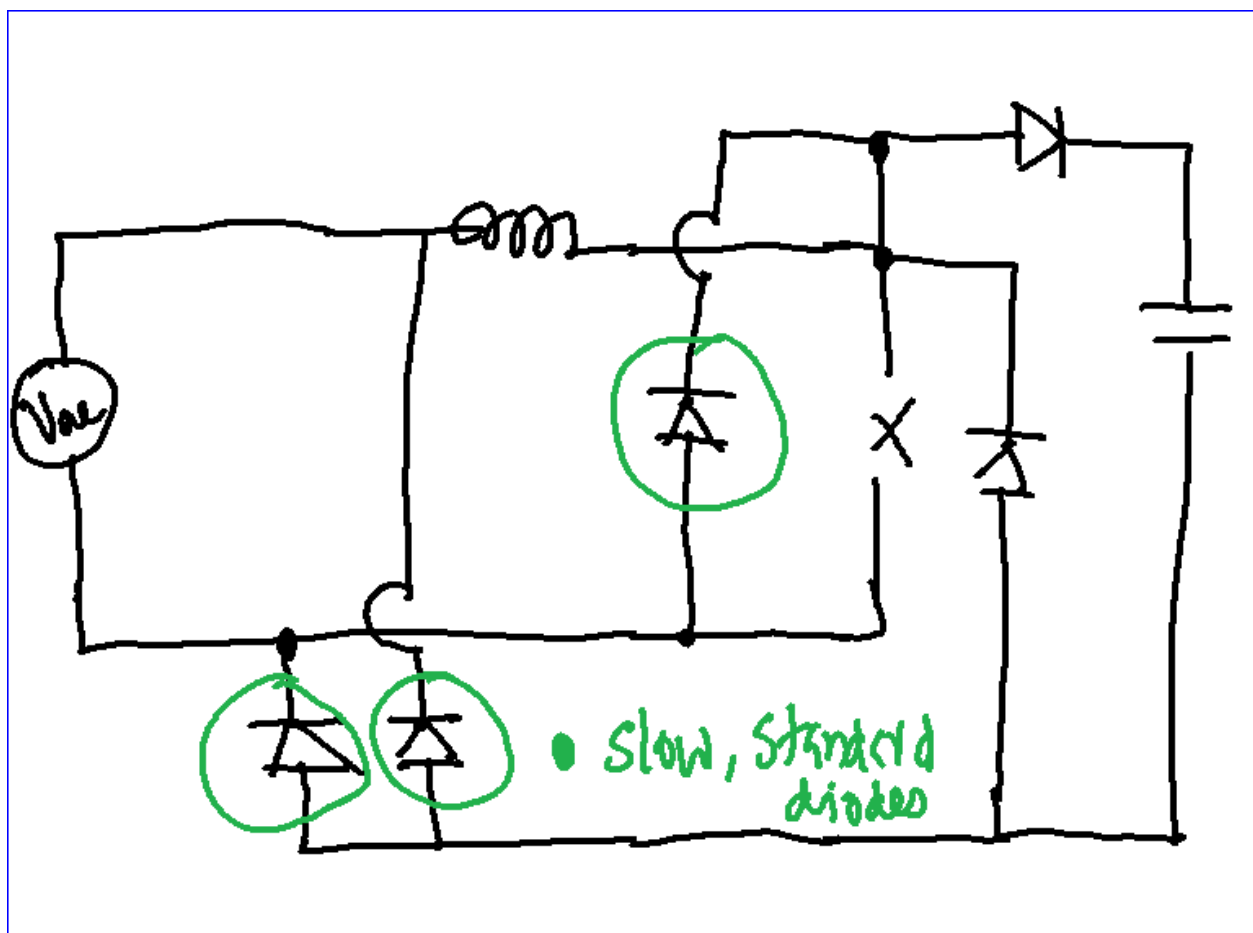
As you can see the voltage across diode during reverse recovery time is only $\approx 1\text{V}$

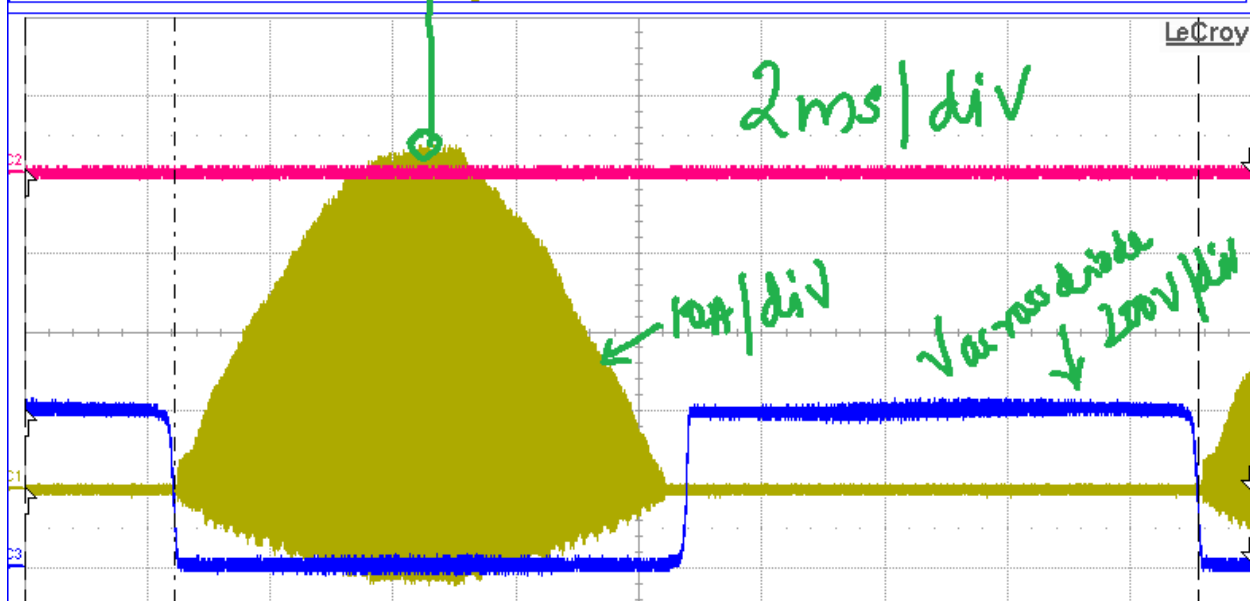
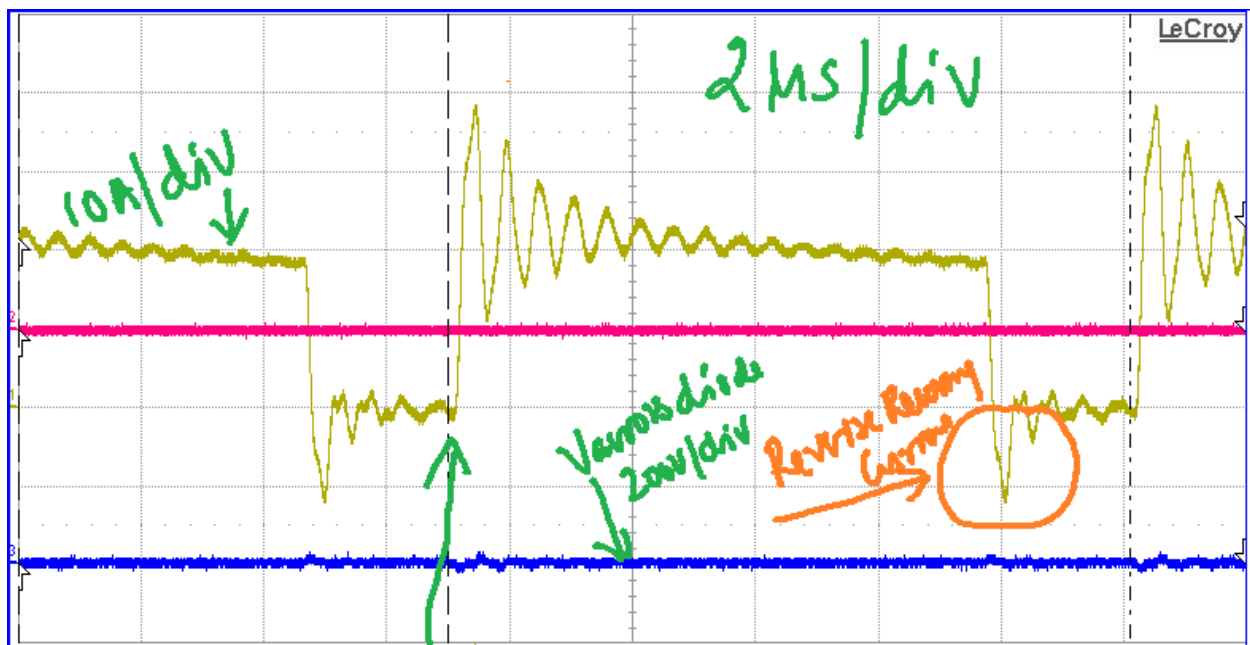
Is there any issue that anyone can see in using standard diode in this application

If we use a SiC diode the reverse current can be eliminated

We have some failures in this diode alone but I cannot pin point a specific reason or violation of a spec to point that , this is the problem....It will be a big help if anyone in this industry can respond

Usage of standard diode in the ckt





With SiC Diode

