

- Except for the gate drive modules (i.e. “PSE” nomenclature products), all EPC Space modules have power HEMTs and anti-parallel “catch” diodes utilized as their output power stage(s):
 - 50V devices (“R50” nomenclature) utilize 100V-rated HEMTs and Schottky diodes.
 - 100V devices (“R100” nomenclature) utilize 200V-rated HEMTs and Schottky diodes.
- This 50% “automatic” derating of all EPC Space modular products is done to abide by the NASA de-rating criteria of 50% reverse voltage(V_r) for rad-hard power Schottky diodes for space applications to ensure non-destructive rad hardness:
 - From the work done by M. Casey et. al. at NASA Gordon Spaceflight Center.
 - **NOTE:** The eGaN HEMTs DO NOT require this 50% de-rating, however it is applied to the HEMT to force both the HEMT power transistor and the required de-rated Schottky diode to have the same de-rating criteria “starting line” for the end customer to avoid confusion.