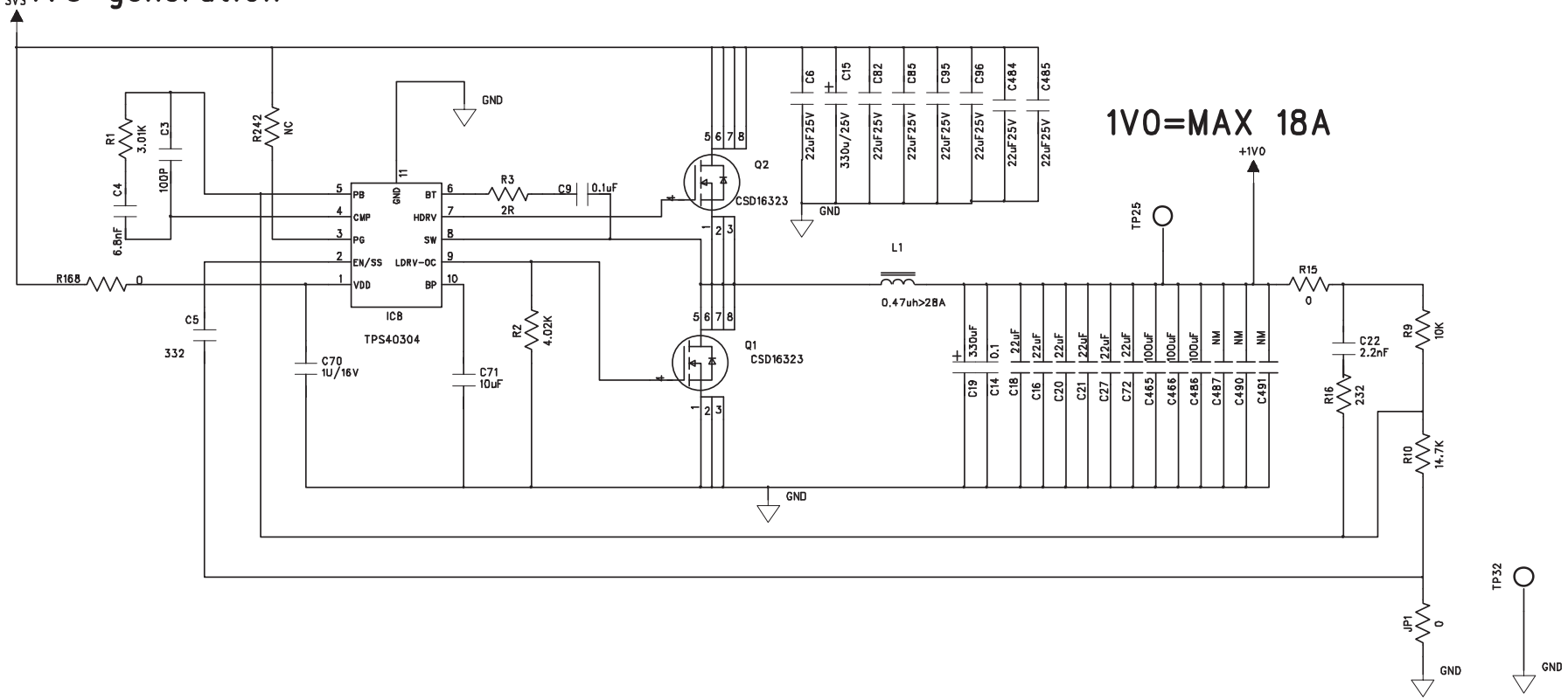1V0 generation