**Power MOSFET trade study**

Requirements

This power MOSFET will be used as the deployment switch to the batteries therefore it must be a P-type switch which features:

* A low on resistance (lower is better)
* Vgs more than 7.2 volts. (more is better)
* Id of more than 10 amps. (more is better)
* Pd of more than 72 watts. (more is better)
* Vgs(th) of less than 7.2 volts (should be a good chunk less, but less is not necessarily better)
* A case that can fit under the battery board. Which is assumed to be 25 mm (will be checked) (smaller is better)
* Low Idss leakage current for when the satellite is off. (lower is better

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Name | Datasheet | Rds(on)  (ohms) | Id  (A) | Vgs(th) (V) | Vgs  (V) | Size (mm) | Idss  (uA) |
| IRHLNJ797034 | [Link](http://www.irf.com/product-info/datasheets/data/irhlnj797034.pdf) | .072 | -14.9 | -2 | 10 | 7.64 x10.28 x3.12 | 1 |
| IRHNJ597z30 | [link](http://www.irf.com/product-info/datasheets/data/irhnj597z30.pdf) | .070 | 18 | 4 | 20 | 7.64 x10.28 x3.12 | 10 |