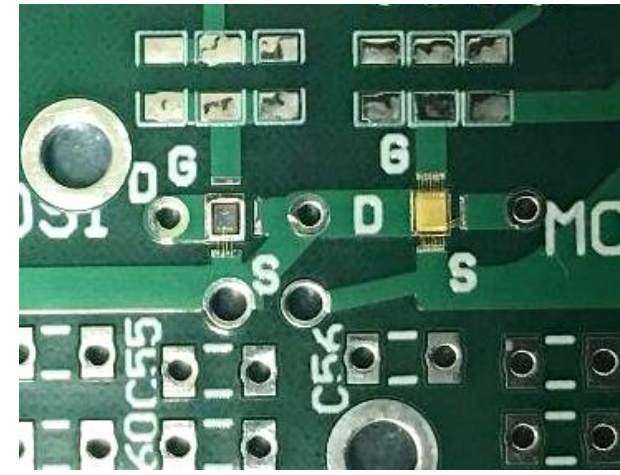
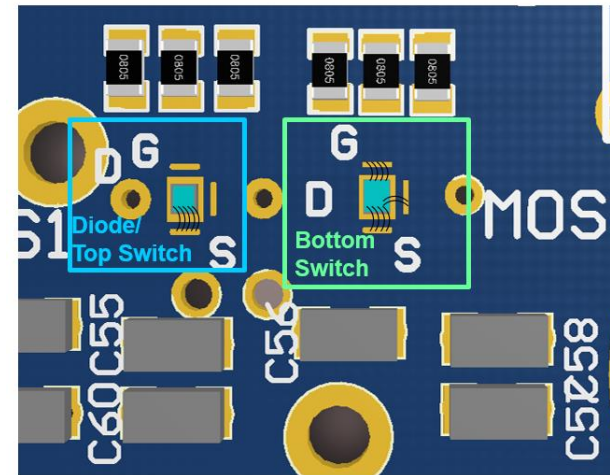
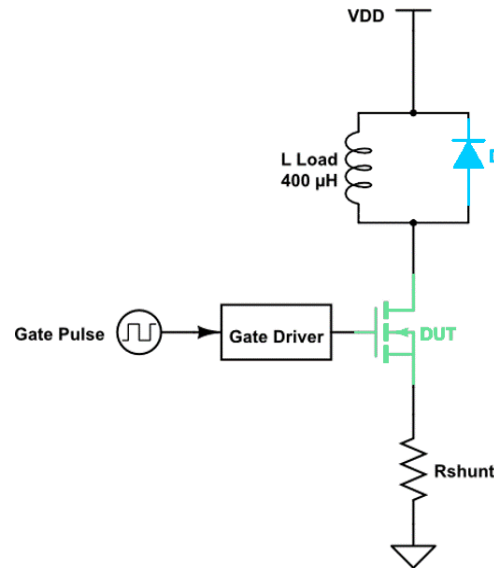


## Design of Test Set-up

- Designed so that the top device on the PCB can be interchanged with a diode or another switch
- Bare die can be mounted directly onto the board
- Small gate loop and power loop
- Used to test the dynamic characterization of the device



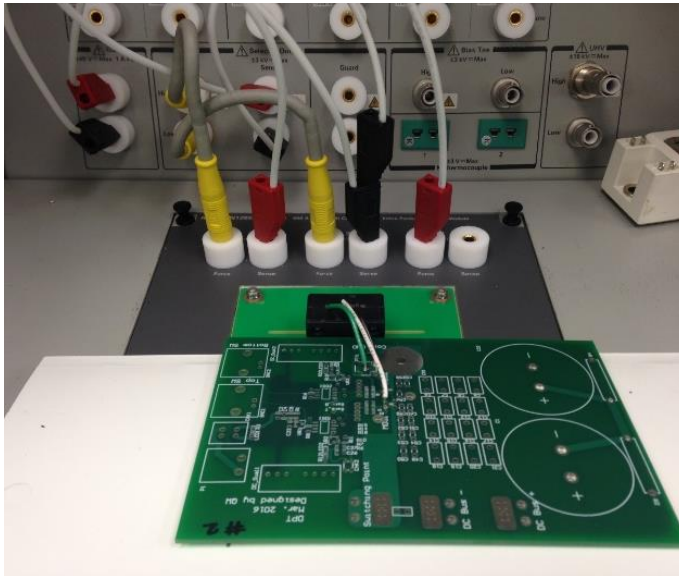
## Transistor

Amy Romero, Christina DiMarino, Rongming Chu, Rolando Burgos

Bench # 52

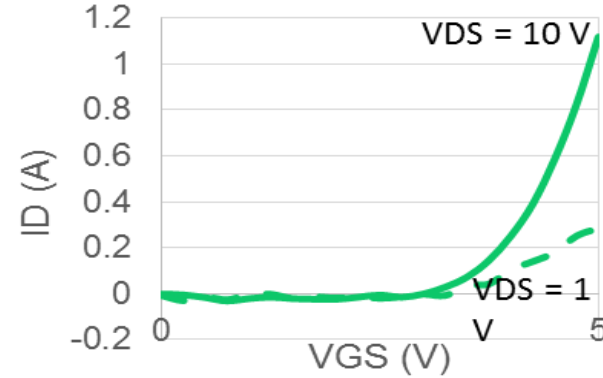
### Static Characterization

- Wires are connected to the PCB to measure the static characteristics of the device directly mounted onto it

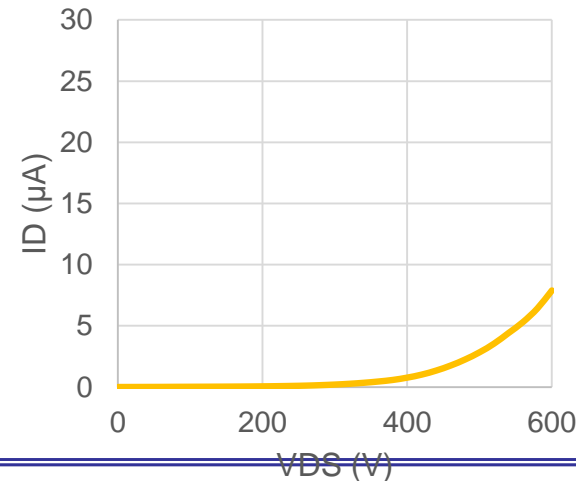


### Transfer Characteristics

$V_{DS}$  of 1 V and 10 V

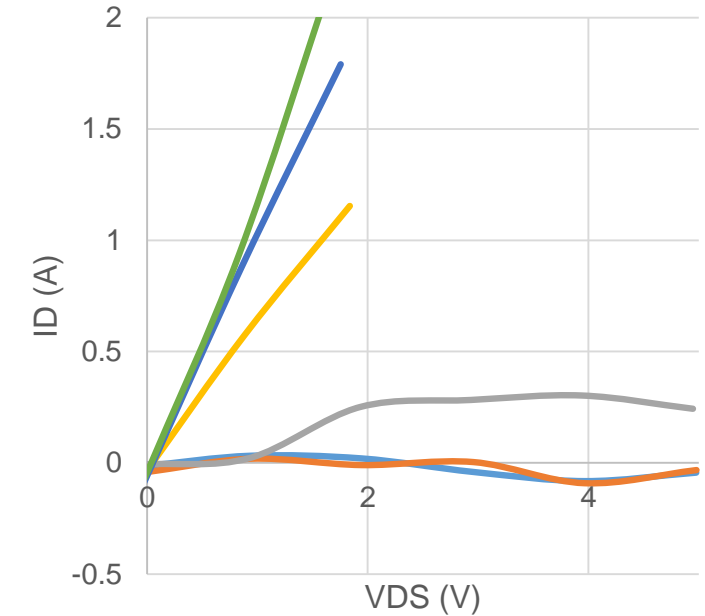


### Breakdown Voltage



### Output Characteristics

$V_{GS} = 0, 2, 4, 6, 8, 10$  V



## Dynamic Characterization

Switching-on Losses	Switching-off Losses	Total Losses
9.56 $\mu\text{J}$	1.85 $\mu\text{J}$	11.4 $\mu\text{J}$

- Switching Characterization of the device performed up to 400 V and 2 A
- Tested with an external gate resistance of 10 $\Omega$
- Current is measured using a 25.28 m $\Omega$  resistor shunt
- Turn on dv/dt of up to 60 V/ns measured

