How to check the MOS damaged or not

Suitable for SAKO inverter： SUNSEE/SUNON/SUNON PLUS/SUNPOLO

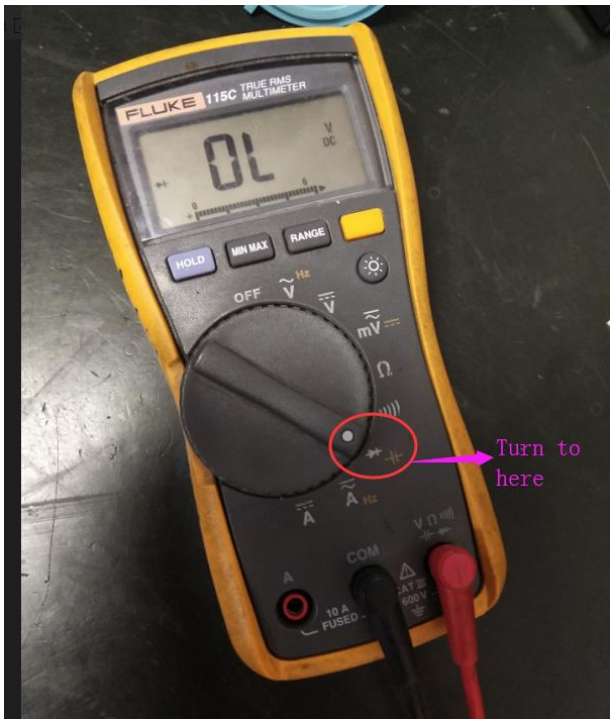
The digital multimeter can check MOS status quickly. Here is one example to show how to test it as follows:

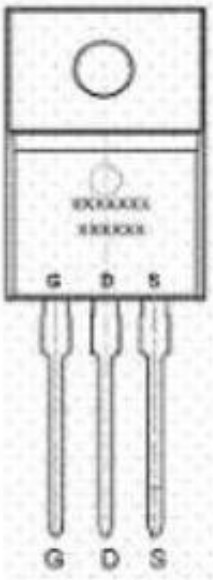
Materials/Tools：

MOS
Multimeter

Instruction

1. The testing method of N channel MOSFET:
   Turn the multimeter to the diode gear wheel.

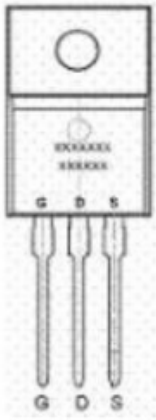




2. Steps

1) . Use the diode gear wheel to test G-S poles of 5N60C forward direction.

The red side of the multimeter to G, Black side to S, if the data on multimeter is OL, the Mosfet is good without damage(See below pictures).



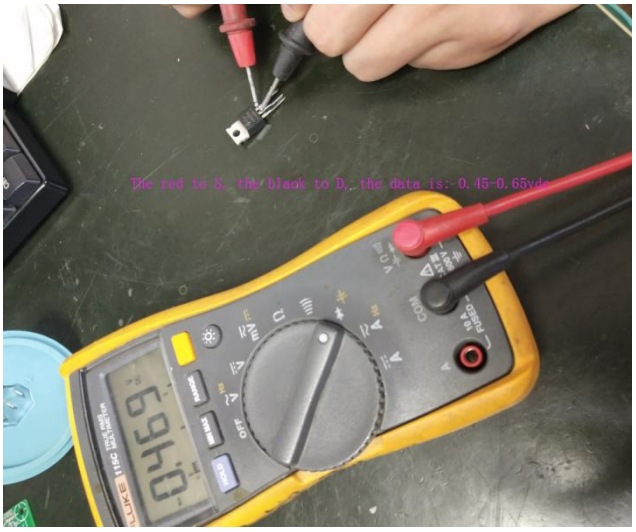
During the testing, the test result as follows will indicates the mosfet is ok without any damage:
If the red side to S, the black side to D, the data on multimeter is 0.45-0.65vdc
The red side to S, the black side to G, the data on multimeter is OL
The red side to G, Black to D, the data on multimeter is OL
The red side to G, Black to S, the data on multimeter is OL
The red side to D, Black to G, the data on multimeter is OL
The red side to D, Black to S, the data on multimeter is OL

2) . Use the diode gear wheel to test D-S poles of 5N60C at opposite direction.

If the red side of the multimeter to S, the black side to D, and the data on multimeter is between 0.45-0.65vdc，the Mosfet is good without damage. (See below pictures, the testing result is 0.569v, the mosfet is good).

If the test data on multimeter is close to 0, it means the mosfet get damaged.

(Test example 1)



(Test example 2)

3) When charge the capacitance between poles G and S with the diode gear wheel of multimeter, for N channel mosfet charging, the red side of multimeter to G pole, and the black side to G pole.
After testing the D and S pole of 5N60C and confirm they are OK, then charge the gate-source capacitance of the mosfet with the diode gear wheel of multimeter.
As the input resistance of the MOSFET is in the GΩ level (1GΩ =1000MΩ), the open-circuit voltage of the diode gear wheel of multimeter is 2.8-3V, after the gate-source capacitance being charged, the resistance between D and S pole of mosfet becomes very small, and can test if pole G and S get damaged.

Kind reminder:
Above test method is the way to test N channel Mosfet.
For P channel mosfet, test method is the same, just exchange the polarity of test lead of the multimeter.