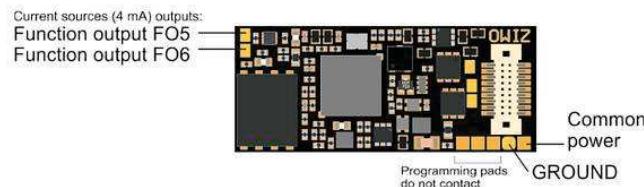


## MS580N18 Top side (with Next18)



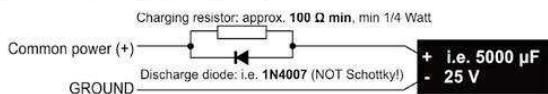
### Note: Ext. energy storage on MS580

- ▲ The "Next-Decoder" MS580 contains an **internal capacity** of 2000  $\mu\text{F}$  at a voltage of 5 V. The two tantalum capacitors (1000  $\mu\text{F}$  each) supply both the sound amplifier and the motor in case of a track voltage failure (only with 5 V, which is sufficient for a slow driving). The internal capacity is sufficient for a "Stay alive" \* of approx. 0.1 sec, and it thus prevents unsightly crackling noises and overcomes short currentless spots.

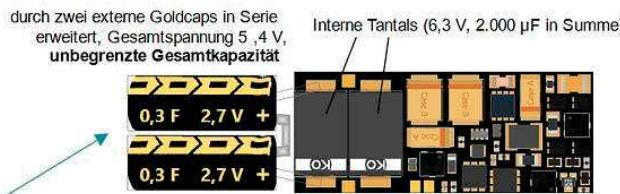
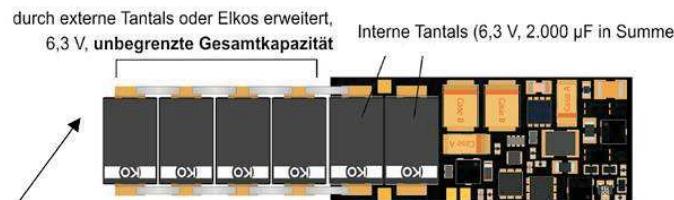
These internal capacitors can be extended by **additional external ones**:

- by additional tantalums of the same design (simply connected by small wire bridges) or any other design (electrolytic capacitors, tantalums, ...). The added capacity is **not limited**, 6.3 V is sufficient for the dielectric strength.
- by two miniature gold caps connected in series (optimal, if possible from the place, of course also to be accommodated elsewhere in the vehicle via wire connection). At the time of writing this text (June 2020), types with 12 x 4 mm (length x diameter) are available, which allow a "Stay alive" \* of 1 - 2 sec. Gold or supercaps with even higher energy density can be expected in the future.

- ▼ If even larger capacities are needed or if not 5 V but running voltage is to be buffered, capacitors can be connected (practically without limitation) to "Common Power", but **WITH** additional components and a dielectric strength matching the running voltage (mostly 25 V):



## Bottom side (with optional eternal extension of the energy storage)



Stay alive time 1 - 2 sec !

## Bottom side of the MS580N18G

WITHOUT tantalums on decoder, but wires to external energy storage, two connected gold caps are included in the package, these should be soldered to the open ends of the wires. **NOTE POLARITY !**

