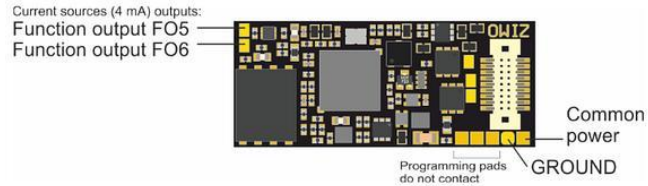


## MS580N18 Top side (with Next18)



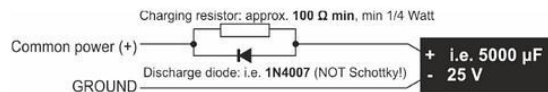
### Note: Ext. energy storage on MS580

▲ 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 tantals of the same design (simply connected by small wire bridges) or any other design (electrolytic capacitors, tantals, ...). 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.

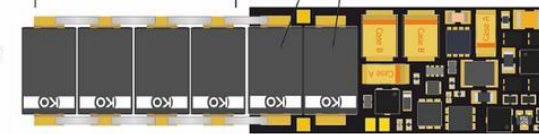
▼ If even larger capacities are needed or if not 5 V but running voltage is to be buffered, capacitors can be connected (practically without limitation) to "Common Power", but **WITH** additional components and a dielectric strength matching the running voltage (mostly 25 V):



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

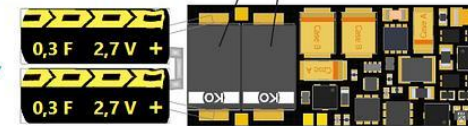
durch externe Tantals oder Elkos erweitert, 6,3 V, **unbegrenzte Gesamtkapazität**

Interne Tantals (6,3 V, 2.000  $\mu\text{F}$  in Summe)



durch zwei externe Goldcaps in Serie erweitert, Gesamtspannung 5,4 V, **unbegrenzte Gesamtkapazität**

Interne Tantals (6,3 V, 2.000  $\mu\text{F}$  in Summe)



Stay alive time 1 - 2 sec !

## Bottom side of the MS580N18G

WITHOUT tantals 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 !**

Energiespeicherung durch beiliegende Goldcaps (bereits in Serie verbunden), Gesamtspannung 5,4 V, resultierende Kapazität 150 000  $\mu\text{F}$

