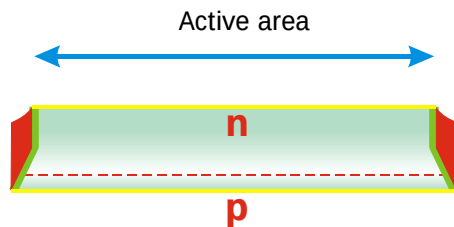


Non-planar chip technology

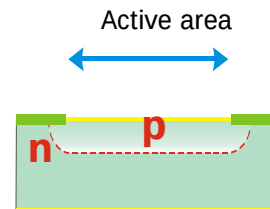


n zone top, p zone bottom
large active area (e. g. Melf ~ 1.69 mm²)

⇒ Advantages

- High pulse capability
- High power dissipation
- high admissible zener current (Z-diodes)

Planar chip technology

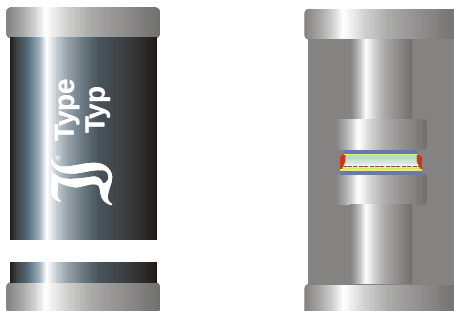


p and n zone within one planarity
small active area (e. g. Melf ~ 0.36 mm²)

⇒ Advantages

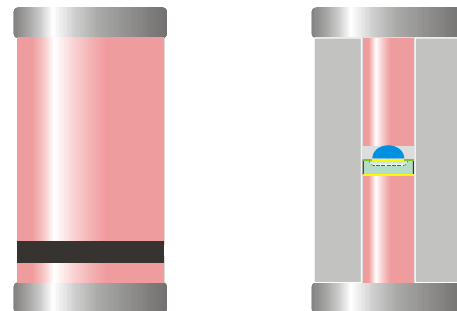
- Low junction capacity
- for Z-diodes with $V_Z < 6.8$ V:
Lower leakage current I_R , more sharp characteristic

Assembly: plastic package



Chip soldered to contacts,
molded with duroplast (UL94V-0)
= high reliability and good heat transfer

Assembly: glass package



Chip pressure contacted,
within glass tube
= simple assembly, but disadvantage
in heat transfer

Application

high currents/power/voltages
e. g.

MiniMELF case

ZMD1...100 (1 W Zener)
GL1A...M (1 A, 50...1000 V)

MELF case

ZMY1...200 (1.3 W Zener)
SMZ1...200 (2 W Zener)
SZ3C1...200 (3 W Zener)
SM513...2000 (1 A, 1.3...2 kV)

Application

Small power/small signal diodes
e. g.

MiniMELF case

ZMM1...75 (500 mW Zener)
LL4148 (200 mA, 100 V)

MELF case

ZMY3.9G...9.1G (1 W Zener)