**Non-planar chip technology**

- **Active area**: 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)

**Assembly: plastic package**

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

**Application**

- High currents/power/voltages
  - 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)

**Planar chip technology**

- **Active area**: p and n zone within one planarity
- **Small active area** (e.g., Melf ~ 0.36 mm²)

⇒ **Advantages**
- Low junction capacity
- Low leakage current, sharp curve even for Z-diodes with V_z < 6.8 V

**Assembly: glass package**

- Chip pressure contacted, within glass tube
- Simple assembly, but disadvantage in heat transfer

**Application**

- Small power/small signal diodes
  - MiniMELF case
    - ZMM1...100 (500 mW Zener)
    - LL4148 (200 mA, 100 V)
  - MELF case
    - ZMY1G...100G (1 W Zener)