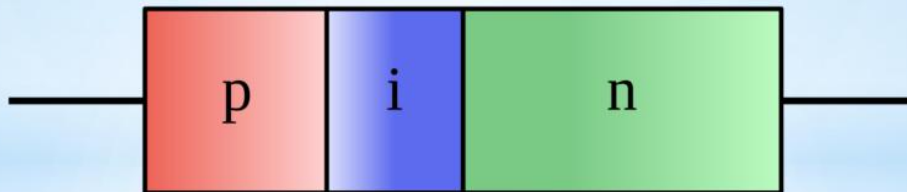




GaAs ultrafast pin-diode chips



GaAs rectifier pin-diode chips ADV 119AN5, ADV 120AN5

- Ultra-fast switching
- High radiation resistance
- High-temperature diode structures

Electrical characteristics

| Parameter | Symbol | Unit | Value | | | Test conditions | Remark |
|-------------------------|----------|------|-------|------|------|---|--------|
| | | | Min. | Typ. | Max. | | |
| Forward voltage drop | V_F | V | - | 1,6 | 1,7 | $I_F=15A$ at $T=+25$ °C(normal cond.) | 2 |
| | | | - | 1,9 | 2,0 | $I_F=15A$ at $T=-60$ °C | |
| Reverse leakage current | I_R | uA | - | - | 10 | $V_R=700$ V at $T=+25$ °C(normal cond.) | 1 |
| | | | - | - | 100 | $V_R=700$ V at $T=+125$ °C | 2 |
| Breakdown voltage | V_R | V | 700 | 900 | - | $I_R=100$ μA | 1 |
| Reverse recovery time | t_{rr} | ns | - | 70 | 75 | $di/dt=250A/ms$, $V_R=30$ V $I_R=15A$ | 2 |

Remark:
1-controlled parameter of chip diode (packageless);
2 - controlled parameter of inbuilt to the package diode

Design

| Chip name | ADV 119AN5 | | ADV 120AN5 | |
|------------------------------|-------------------|-------------------|-------------------|--------------------|
| Chip size, mm | 3,1 $\pm 0,03$ | 3,1 $\pm 0,03$ | 4,7 $\pm 0,03$ | 2,92 $\pm 0,03$ |
| Chip thickness (H), μm | 380 ± 15 | | 380 ± 15 | |
| The size of anode part, mm | 3,1 $\pm 0,03$ | 3,1 $\pm 0,03$ | 4,7 $\pm 0,03$ | 2,92 $\pm 0,03$ |
| The size of cathode part, mm | 2,7 -0,01 | 2,7 -0,01 | 4,46 -0,01 | 2,68 0,01 |
| Anode metallization | Au | | Au | |
| Cathode metallization | Au | | Au | |
| Glassification junction | polyimide | | polyimide | |