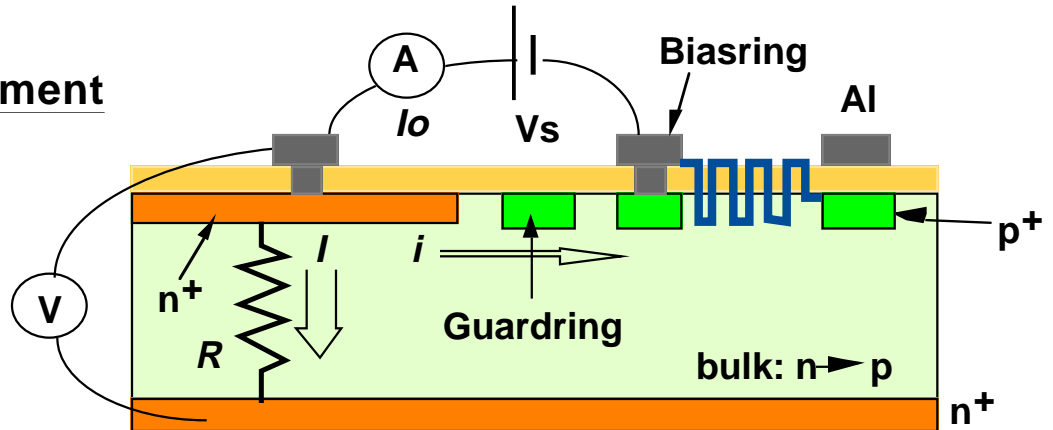


Resistance between frontside and backside n⁺ of irradiated p-in-n sensors

- Is it adequate to use frontside n⁺ to feed bias ? -

Measurement



$$R = \frac{V}{I} \geq \frac{V}{I_0}$$

samples:

- A: $\rho = 4 \text{ k}\Omega\text{cm}$ $\phi = 1.6 \times 10^{14} \text{ p/cm}^2 (*)$
- B: $\rho = 1 \text{ k}\Omega\text{cm}$ $\phi = 1.6 \times 10^{14} \text{ p/cm}^2 (*)$
- C: $\rho = 1 \text{ k}\Omega\text{cm}$ $\phi = 4.0 \times 10^{14} \text{ p/cm}^2 (\$)$

irradiated at KEK in Jan[§]/Jun^{*} 1998

Result

$R > 70 \sim 120 \text{ k}\Omega$



biasing from frontside n⁺ is not desirable after type inversion

