

## History / Achievement

### 1948-1975

1948

· [ Inauguration of Electrical Communications Laboratories ]

1950

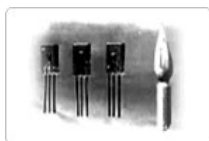
· Fabrication of a Prototype Germanium Point-contact Transistors

1952

· [ Establishment of Nippon Telegraph and Telephone Public Corporation ]

1953

· Fabrication of a Germanium Junction Transistors



1955

· [ Start of Semiconductor Section ]

1958

· Alloy-type High speed Germanium Transistor ( $f_a=130\text{MHz}$ )



1960

· [ Establishment of Electrical Communications Laboratories, Ibaraki Branch ]



1963

· Fabrication of a Silicon Mesa-transistor( $f_a>600\text{MHz}$ )

1965

---

- Start of Research on Logical Integrated Circuits
- Start of research on Gallium Arsenide Semiconductors
- Practical use of Boundary Layer Magnetic Condensers (BL Condensers)



1966

---

- [ Establishment of Basic Research Laboratory ]

1968

---

- Invention of Non-Threshold Logic Circuit (NTL)



1971

---

- [ Establishment of Integrated Circuit Research Laboratory ]
- [ Establishment of Research and Development Administrative Center ]
- [ Establishment of Ibaraki Electrical Communications Research Laboratories ]

1973

---

- Invention of Stepped Electrode Transistor (SET)