

1. Record Nr.	UNINA9910735564703321
Titolo	75th anniversary of the transistor // edited by Arokia Nathan, Samar Saha, Ravi M. Todi
Pubbl/distr/stampa	Hoboken, NJ : , : John Wiley & Sons, Inc., , [2023] ©2023
ISBN	1-394-20247-4 1-394-20245-8
Edizione	[First edition.]
Descrizione fisica	1 online resource (479 pages)
Disciplina	621.38152809
Soggetti	Transistors Integrated circuits
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	"A transistor is a miniature semiconductor that regulates or controls current or voltage flow in addition amplifying and generating these electrical signals and acting as a switch/gate for them. Typically, transistors consist of three layers, or terminals, of a semiconductor material, each of which can carry a current. When working as an amplifier, a transistor transforms a small input current into a bigger output current. As a switch, it can be in one of two distinct states -- on or off -- to control the flow of electronic signals through an electrical circuit or electronic device. In small quantities, transistors are used to create simple electronic switches. They are the basic elements in integrated circuits (ICs), which consist of a large number of transistors interconnected with circuitry and baked into a single silicon microchip" --