

# IFPE

---

## ELETRONICA BÁSICA 2

PROFESSOR: PEREIRA

LIVRO(s): BOYLESTAD. **DISPOSITIVOS ELETRÔNICOS.**  
[www.prenhall.com/boylestad\\_br](http://www.prenhall.com/boylestad_br)

(Boylestad. Introdução à Análise de Circuitos  
[www.prenhall.com/boylestad\\_br](http://www.prenhall.com/boylestad_br))

SITE: **<http://www.feiradeciencias.com.br>**

---

# TIRISTORES

---

DEFINIÇÃO: Família de dispositivos de quatro camadas PNPN, onde o mais popular é o SCR.

## PRINCIPAIS TIPOS:

Diodo Shockley (Diodo de quatro camadas)

DIAC (Diodo AC)

SCR (Retificador Controlado de Silício)

SCS (Chave Controlada de Silício)

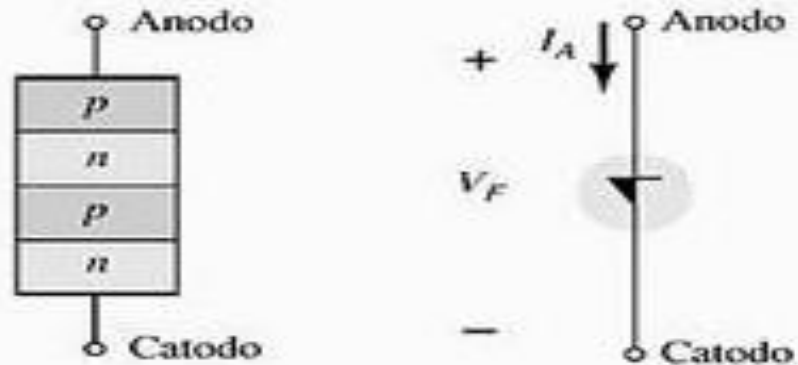
LASCR (SCR Ativado por Luz)

GTO (Chave de Desligamento pela Porta)

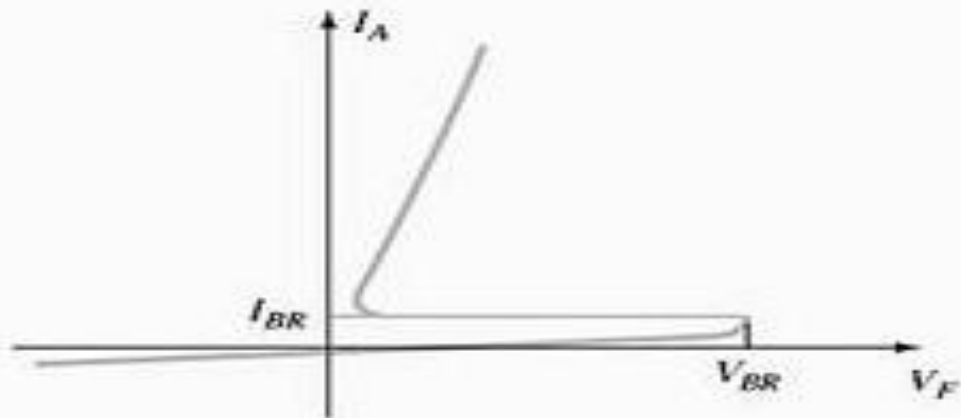
TRIAC (Triodo AC)

---

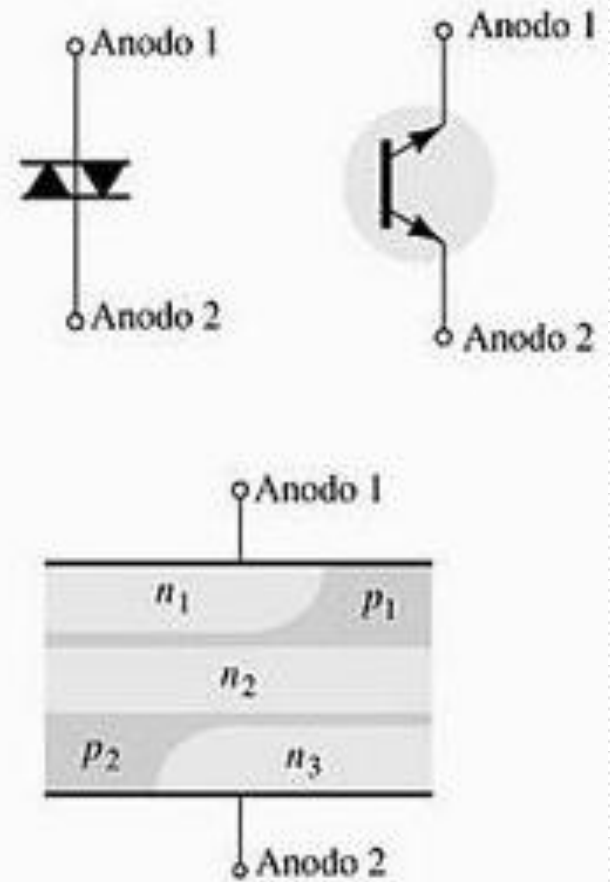
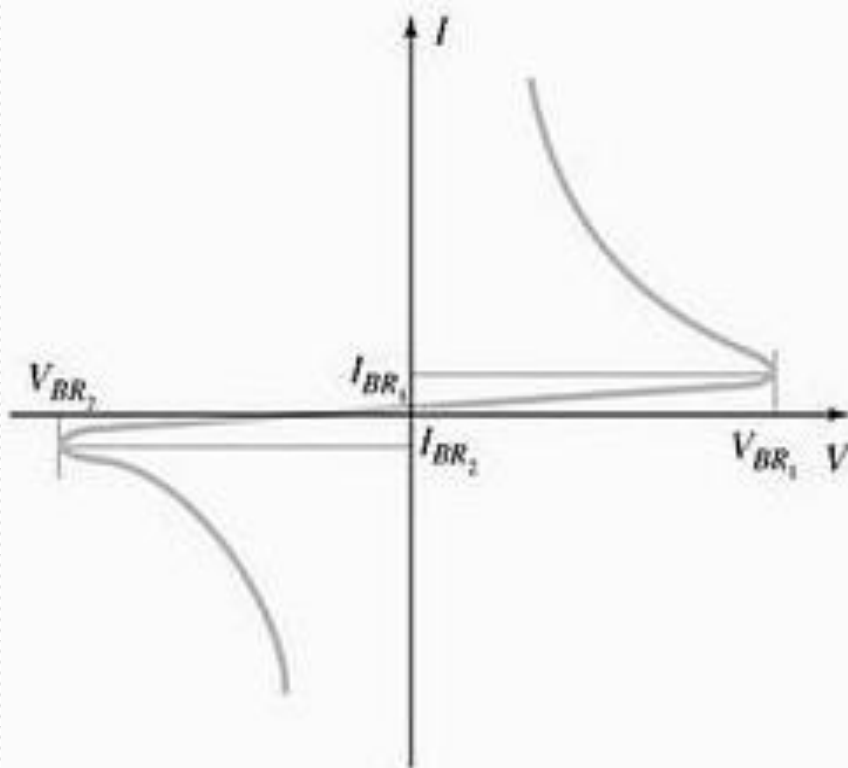
# DIODO SHOCKLEY



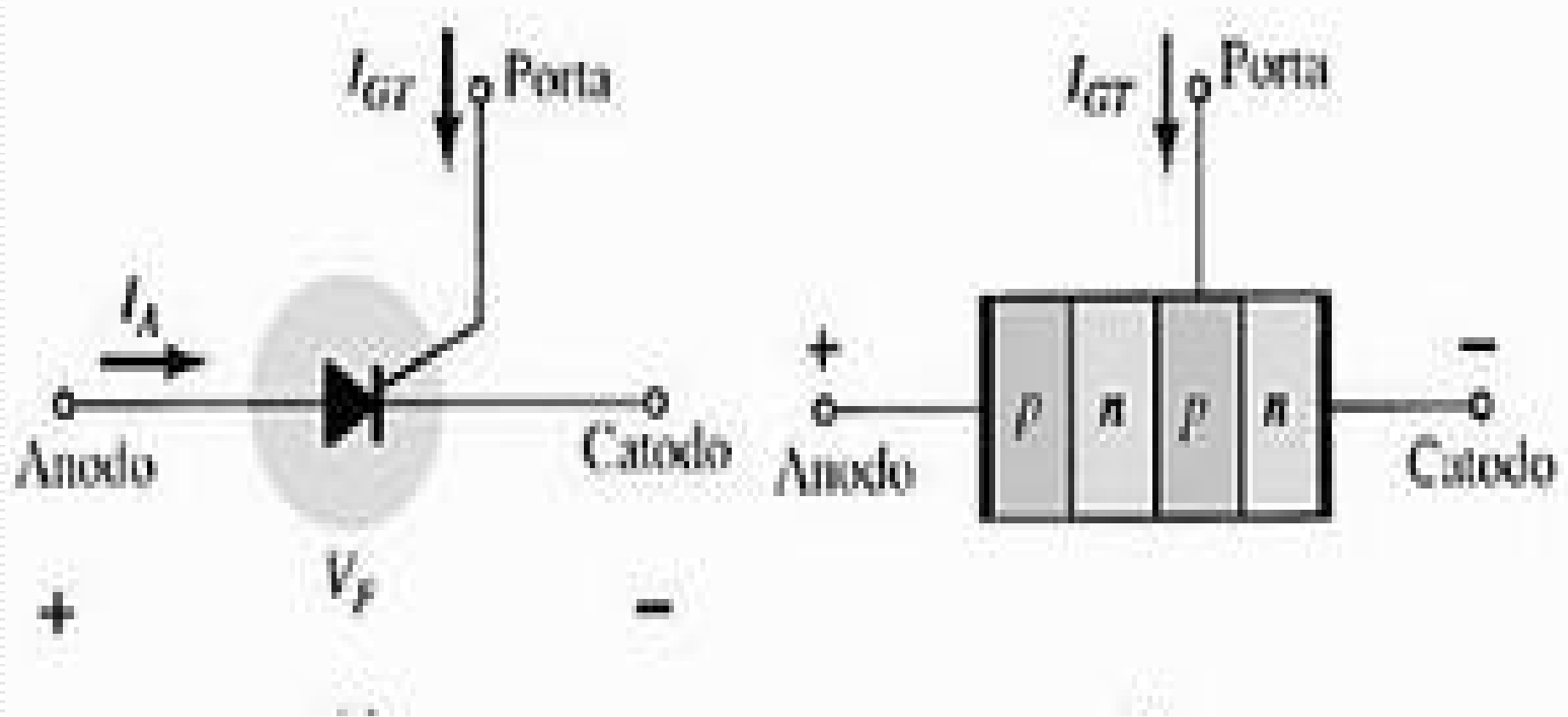
(a)



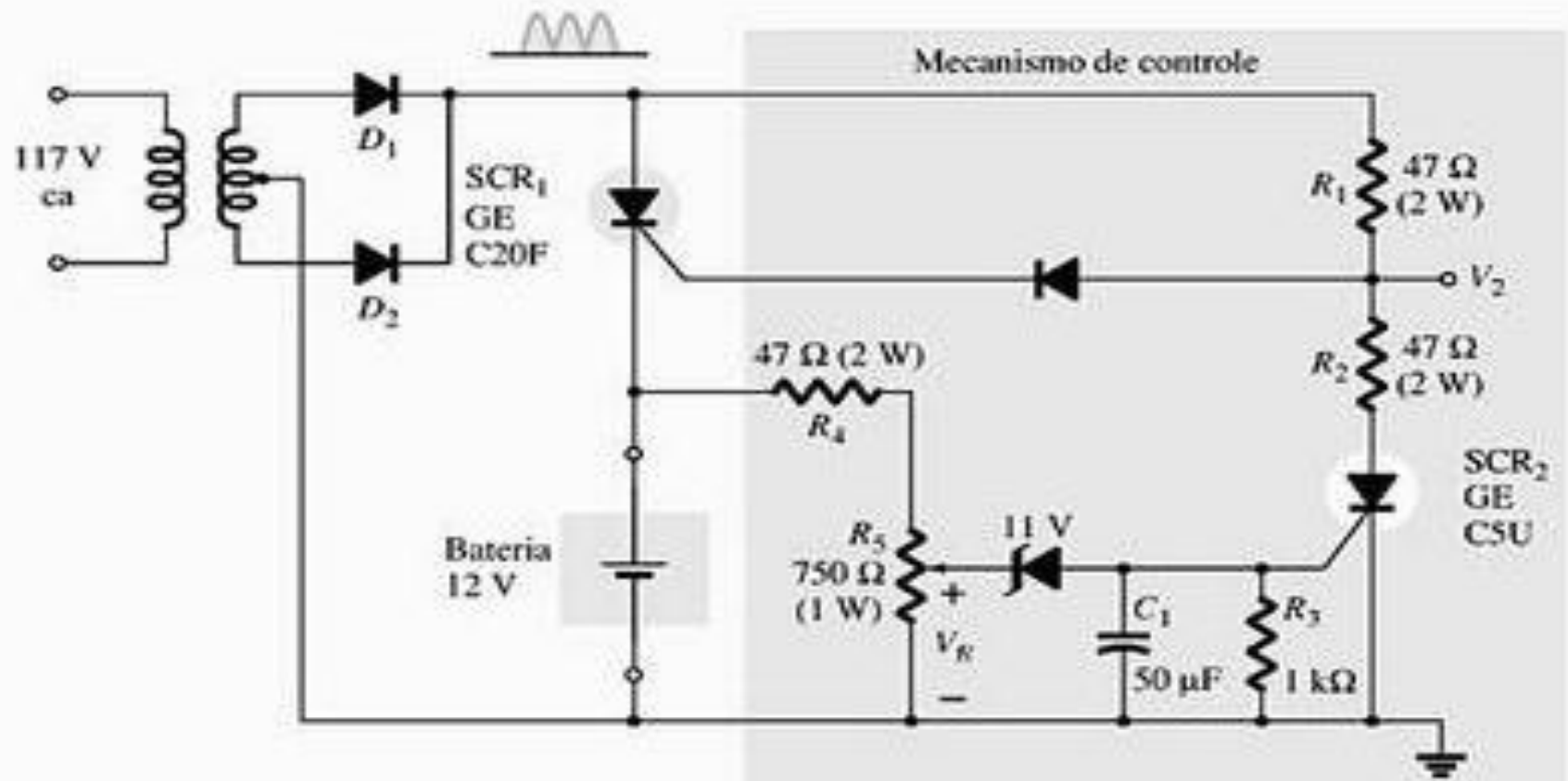
# DIAC



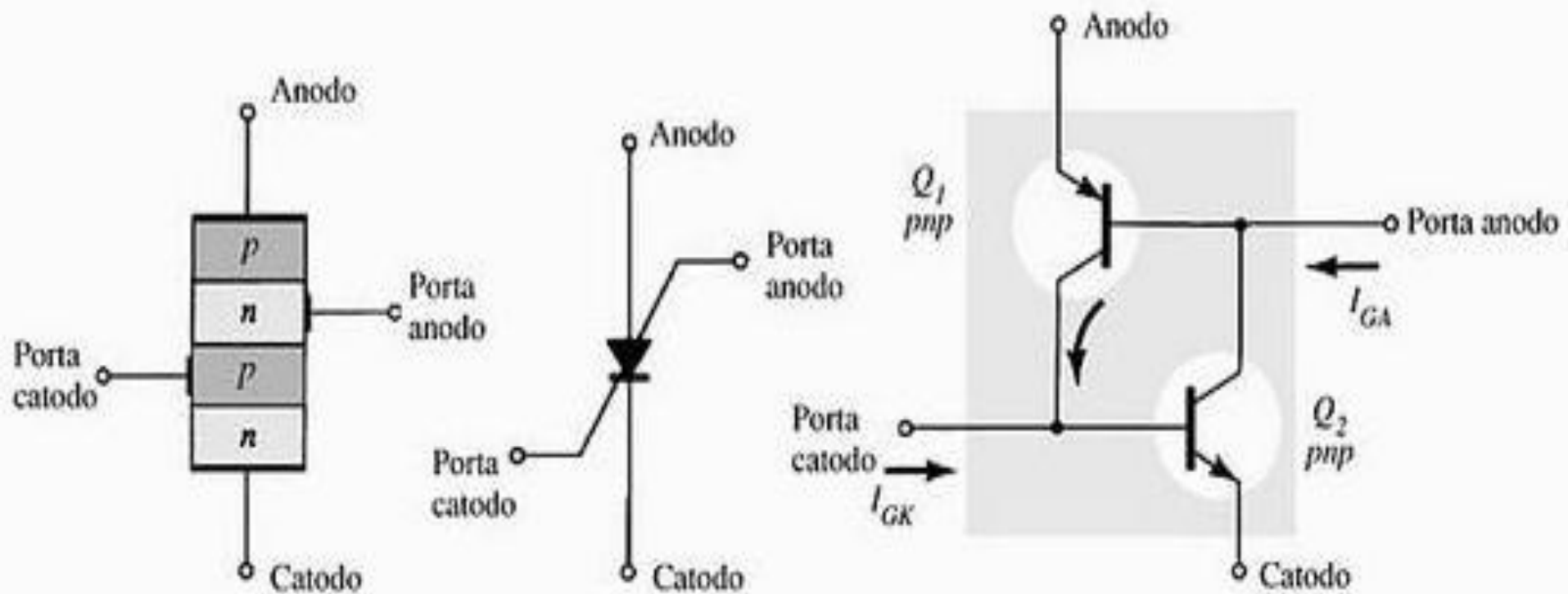
# SCR



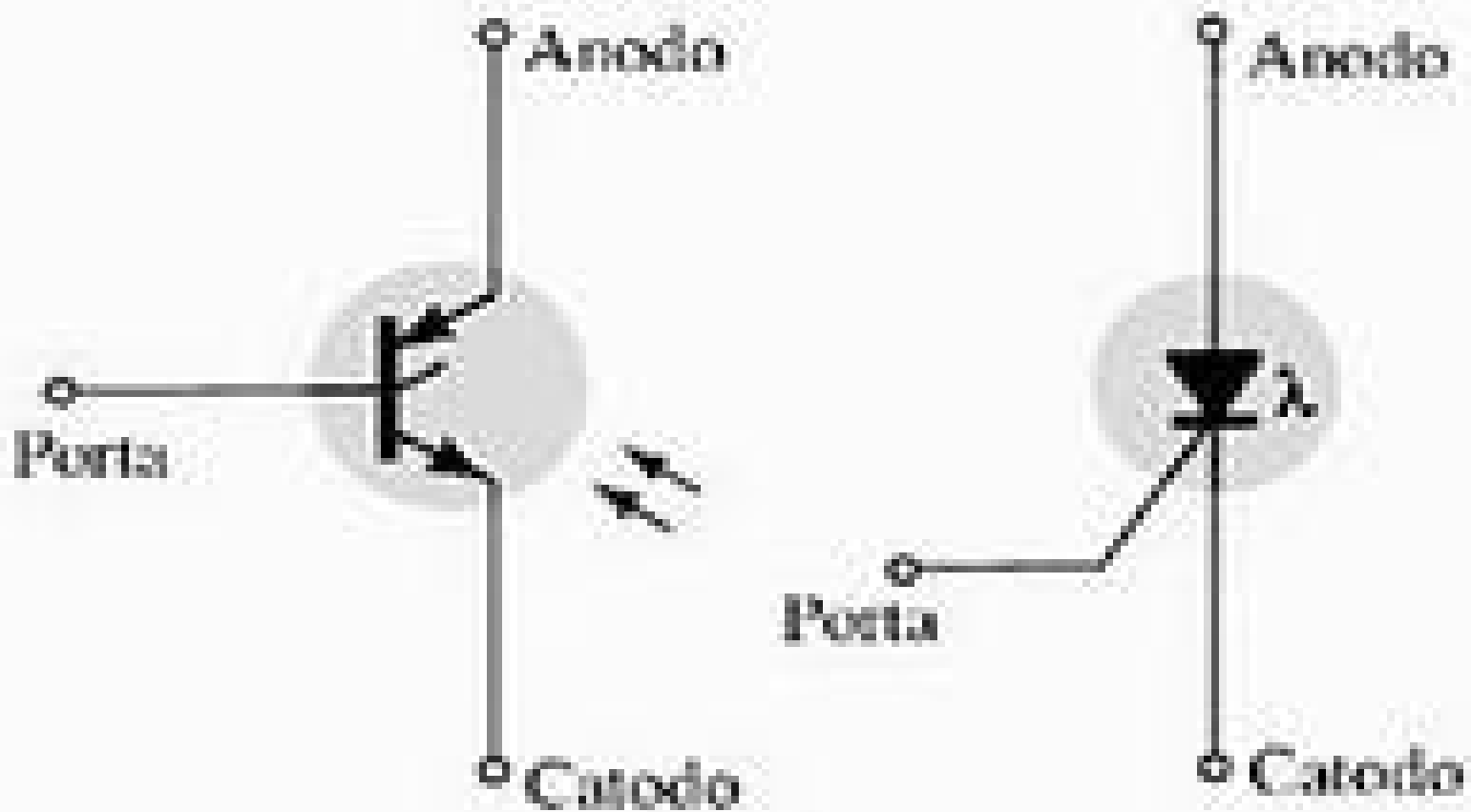
# UMA APLICAÇÃO DO SCR CARREGADOR DE BATERIA



# SCS

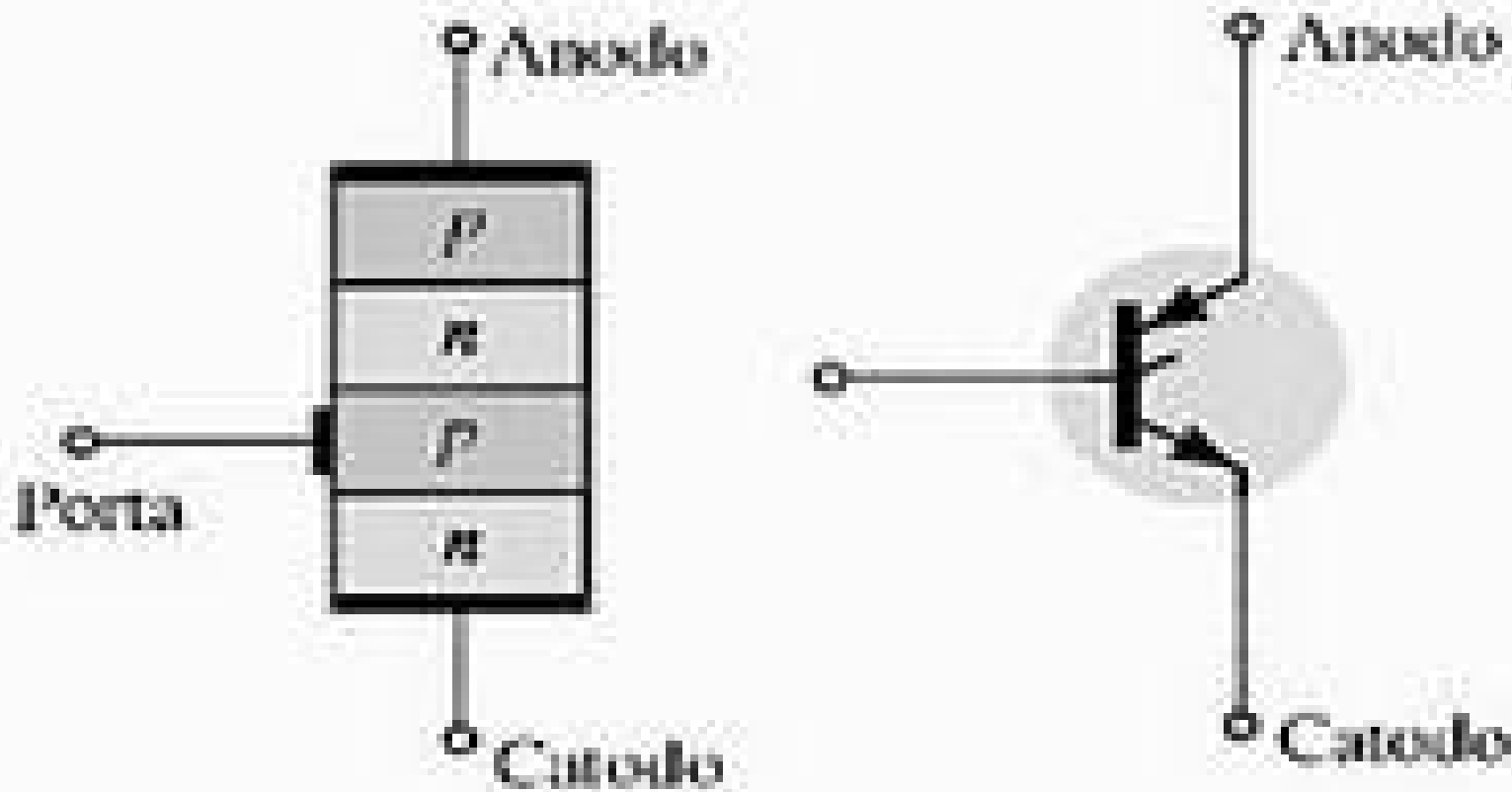


# LASCR

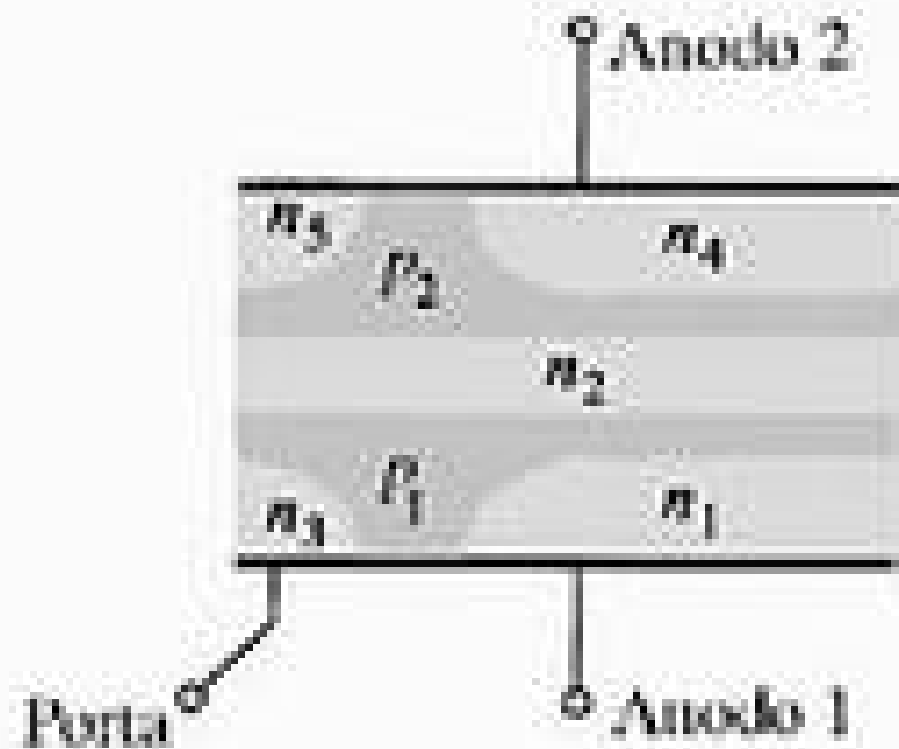
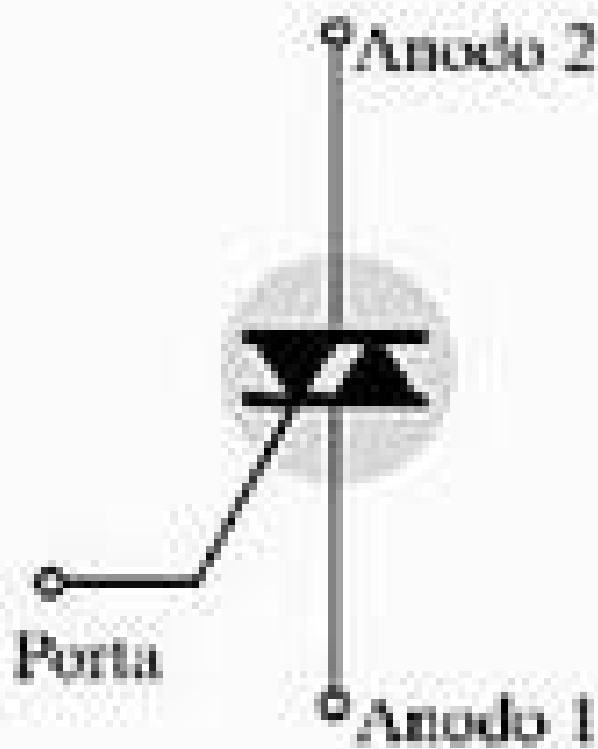




# GTO



# TRIAC



# IGBT

---

- ❑ Transistor Bipolar de Porta Isolada
  - ❑ Reunindo as características de comutação dos transistores bipolares de potência à elevada impedância de entrada dos MOSFET's, o IGBT se torna cada vez mais popular nos circuitos de controle de potência de uso industrial e até mesmo em eletrônica de consumo e embarcada.
-

# CONSTRUÇÃO DO IGBT

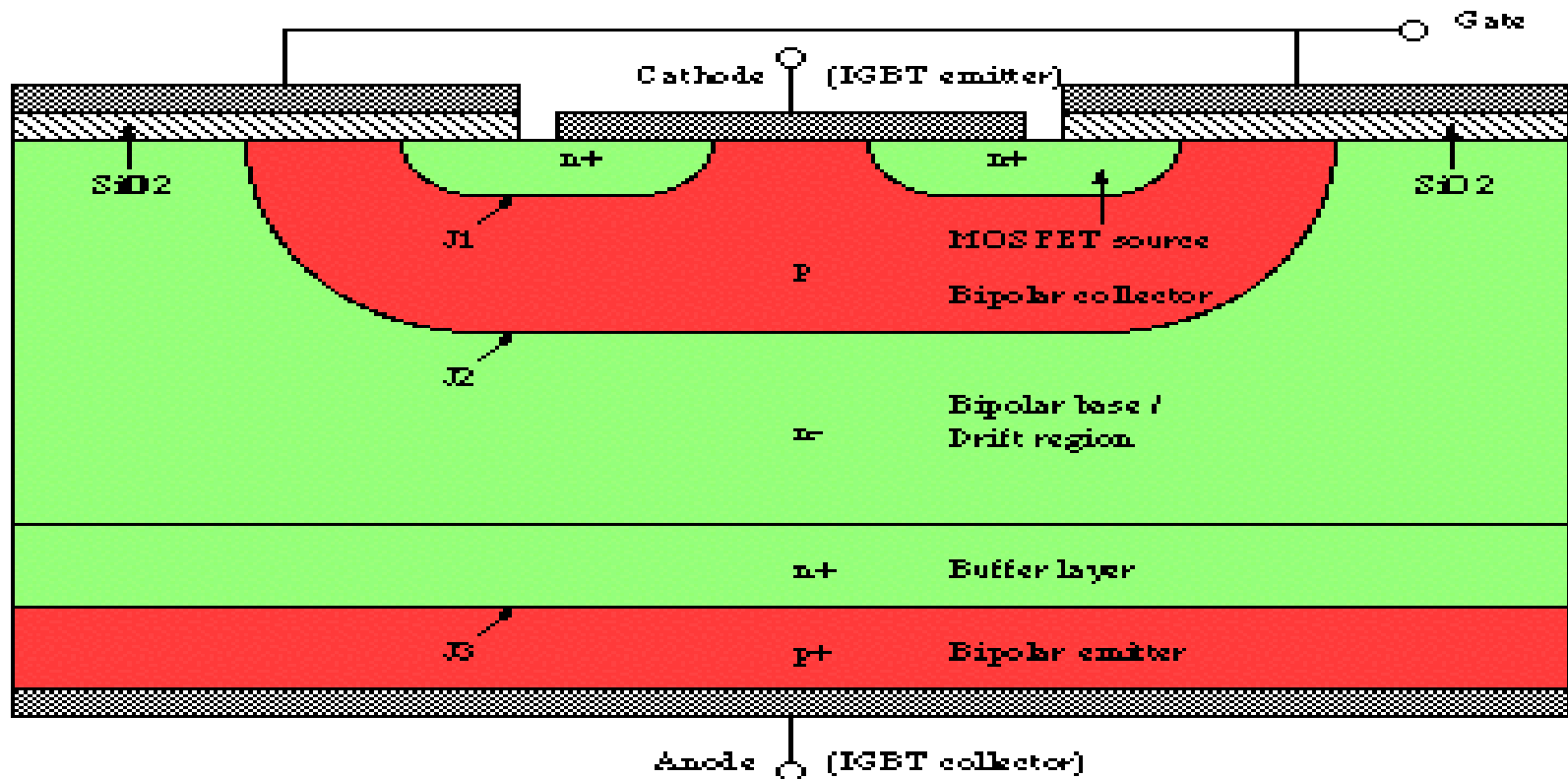


Fig.1: A typical IGBT structure

# SÍMBOLO DO IGBT

---

