

Elektronika Daya I

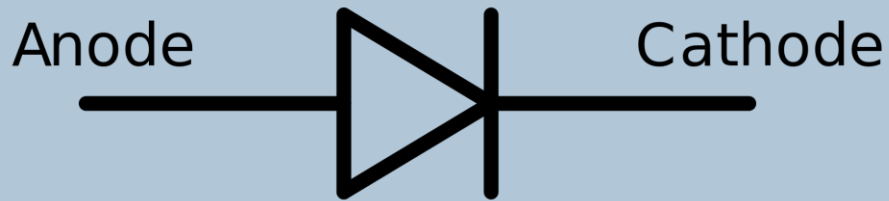
Silicon Controlled Rectifier

Sunu Pradana



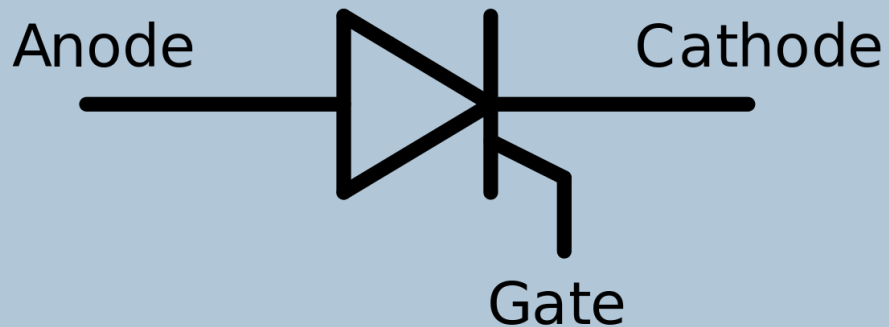
Apakah SCR itu?

Simbol >>



Sumber gambar: upload.wikimedia.org

Diode



**Silicon
Controlled
Rectifier
(SCR)**

Apakah hubungan SCR dengan thyristor dan triac?



<http://www.littelfuse.com/>



<http://www.st.com>

Apakah hubungan SCR dengan **thyristor** dan triac?



THYRISTOR

Power Switching Semiconductor Products

Apakah hubungan SCR dengan **thyristor** dan triac?



Thyristors

A Thyristor is any semiconductor switch with a bi-stable action depending on p-n-p-n regenerative feedback. Thyristors are normally two- or three-terminal devices for either unidirectional or bi-directional circuit configurations. Thyristors can have many forms, but they have certain commonalities. All Thyristors are solid state switches that are normally open circuits (very high impedance), capable of withstanding rated blocking/off-state voltage until triggered to on state. When triggered to on state, Thyristors become a low-impedance current path until principle current either stops or drops below a minimum holding level. After a Thyristor is triggered to on-state condition, the trigger current can be removed without turning off the device. Thyristors are used to control the flow of electrical currents in applications including:

- Home appliances (lighting, heating, temperature control, alarm activation, fan speed)
- Electrical tools (for controlled actions such as motor speed, stapling event, battery charging)
- Outdoor equipment (water sprinklers, gas engine ignition, electronic displays, area lighting, sports equipment, physical fitness)

Apakah hubungan SCR dengan **thyristor** dan triac?

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- semiconductor
- bi-stable action
- p-n-p-n
- regenerative feedback
- **solid state switch**

Apakah hubungan SCR dengan **thyristor** dan triac?

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Bagaimana dengan **DIAC**?

Apakah hubungan SCR dengan **thyristor** dan triac?

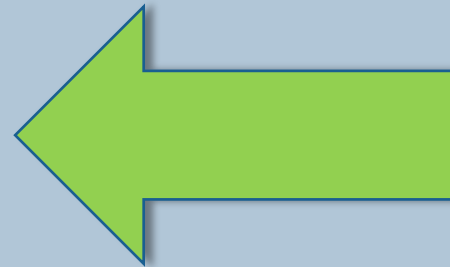
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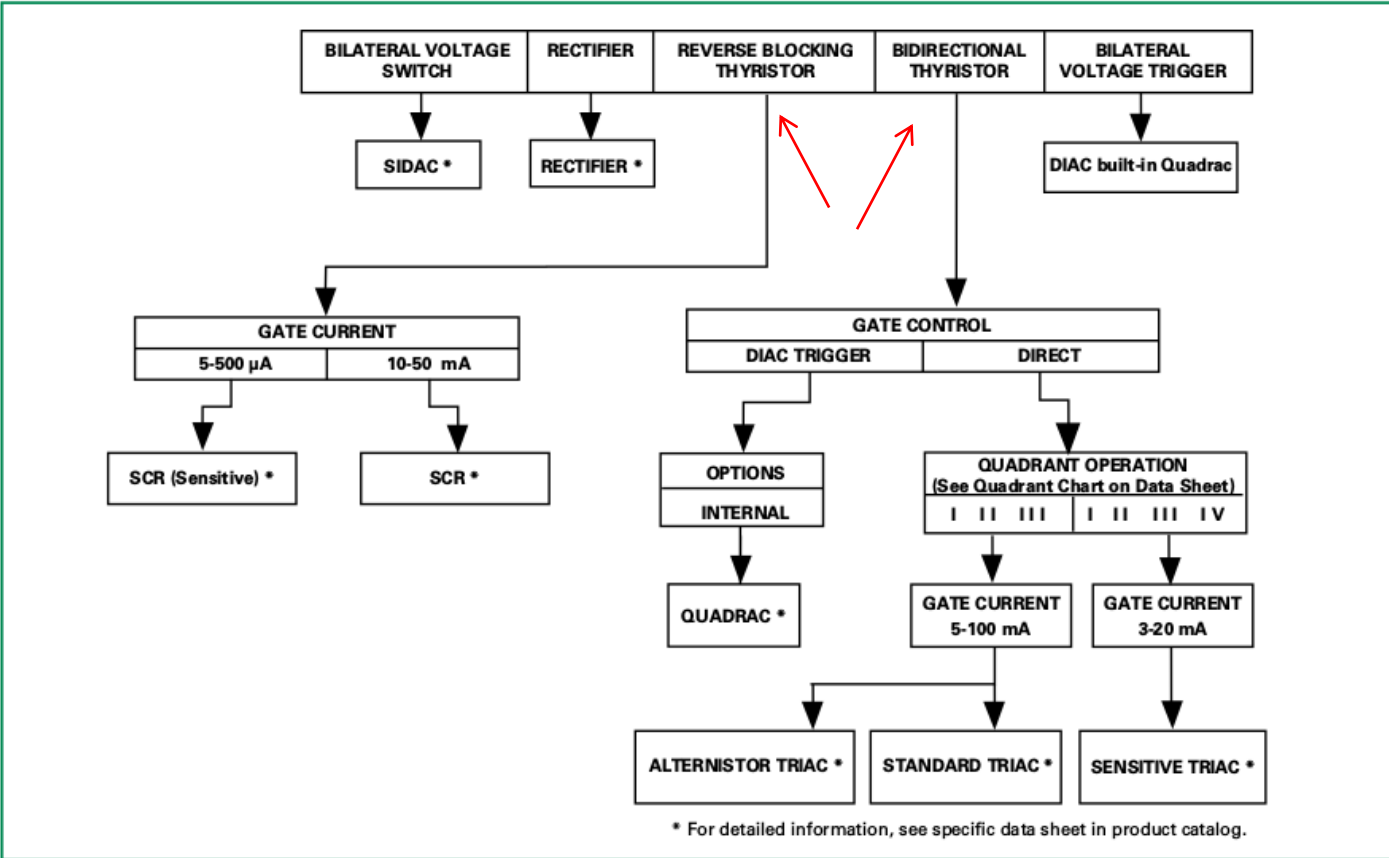
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- **solid state switch**



Apakah hubungan SCR dengan thyristor dan triac?

Circuit Requirement Diagram



Apakah hubungan SCR dengan **thyristor** dan **triac**?



STMicroelectronics

Apakah hubungan SCR dengan **thyristor** dan triac?



AN4608 **Application note**

How to select the right thyristor (SCR) for your application

STMicroelectronics

Introduction

This document provides some guidelines about how to select the right thyristor, also referred to as "SCR", according to the different applications. Some very specific cases could require a higher level of expertise to ensure reliable and efficient operation.

Apakah hubungan SCR dengan **thyristor** dan **triac**?



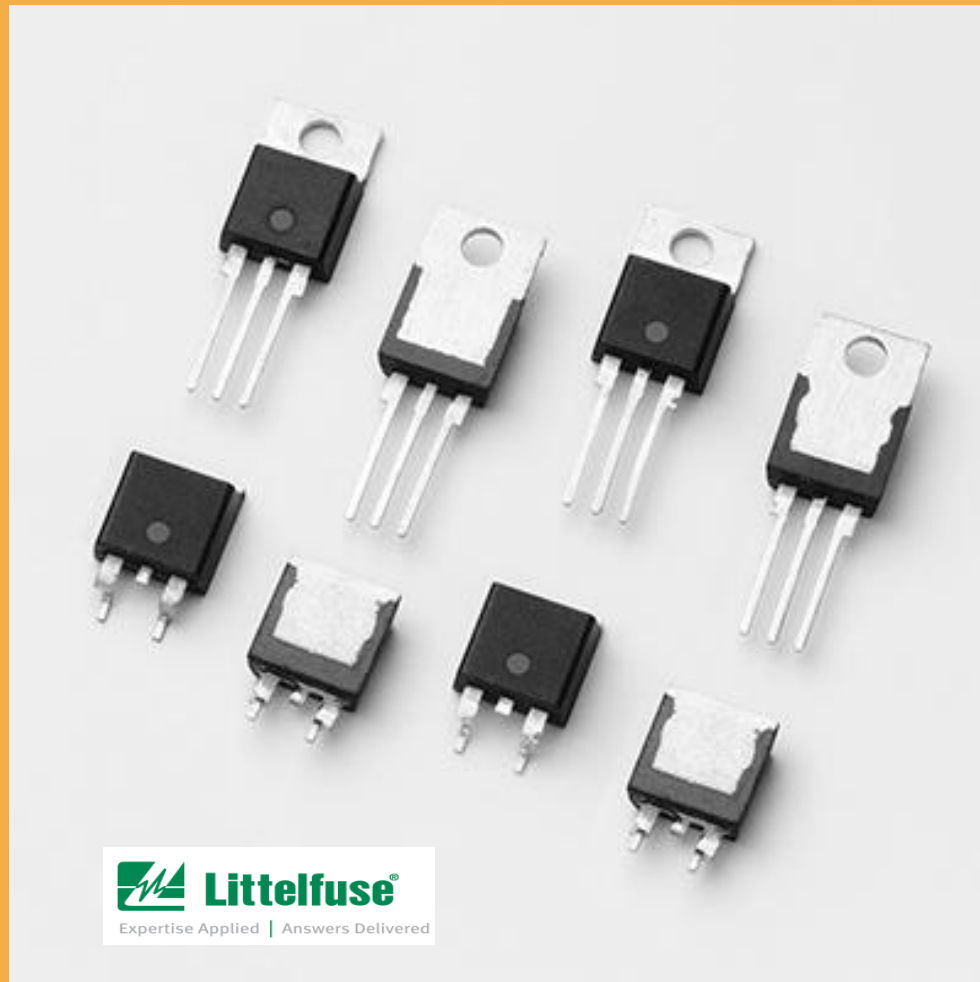
STMicroelectronics

AN303

Application note

Thyristors and TRIACs: latching current

Bagaimana contoh bentuk fisik SCR?



Bagaimana contoh bentuk fisik SCR?



S6025L

Bagaimana contoh sistem dengan SCR sebagai penyearah?



https://www.miniinthebox.com/2000w-scr-voltage-regulator-module-dimming-motor-speed-controller-thermostat_p2164592.html

Bagaimana cara menggunakan SCR?

Bagaimana karakteristik kerja SCR?

Bagaimana cara memanfaatkan SCR?

Untuk membaca lebih lanjut, silakan
membaca paparan mengenai SCR di
blog saya yang lama,
pikirsa.wordpress.com.

pikirsa.wordpress.com:

<https://pikirsa.wordpress.com/2011/06/09/mempelajari-tegangan-breakover-scr-dengan-ltspice/>

<https://pikirsa.wordpress.com/2014/12/22/uji-penyulutan-scr/>

<https://pikirsa.wordpress.com/2015/01/04/tinjauan-matematis-untuk-sudut-penyulutan-scr-2/>

<https://pikirsa.wordpress.com/2015/01/05/simulasi-perwujudan-sakelar-90-derajat-dengan-scr/>

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