

It takes less than 1V to trigger an SCR so you can trigger it directly from an Arduino, but you'd need a resistor (something 1K) to protect the Arduino from excess current.

As a power SCR I thought of using the TYN812 that triggers starting from 10 mA with an IGM of 1.5 A. For the optocoupler I have the MOC3023 with ISTM of 1 A for 1 ms.

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Besides the already discussed voltage rating problem, it's unlikely that a BJT optocoupler can source the required trigger current. In so far the design is not feasible.

Our SCR devices activate with minimal gate current and feature fast turn-off capabilities, reducing the risk of commutation failure. Common applications include strobe lights, fluid level sensors, and ...

SCRs are capable of handling large currents and voltages, making photo-SCR optocouplers ideal for controlling power in AC and DC systems. This device is similar to photo-SCR ...

Input: The input can be connected to the IO port of the microcomputer, PLC interface and DC power control

Output: The output can control motors, bulbs, LED string lights, water pumps, ...

The H11C series consists of a gallium-arsenide infrared emitting diode optically coupled with a light activated silicon controlled rectifier in a 6-pin dual-in-line package.

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