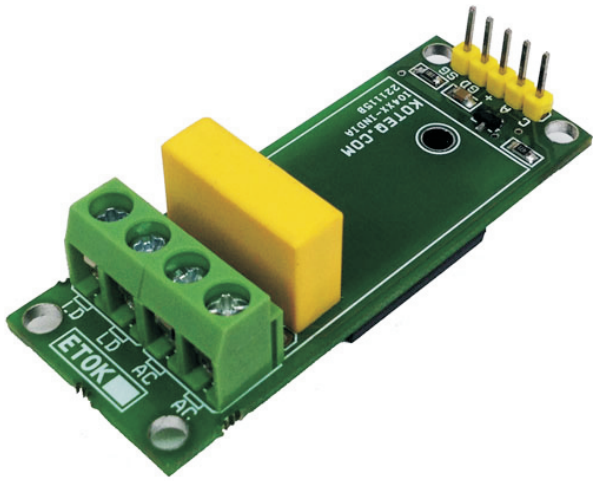
AC SOLID STATE RELAY 110V/230V LOAD UPTO 16AMPS (PEAK)

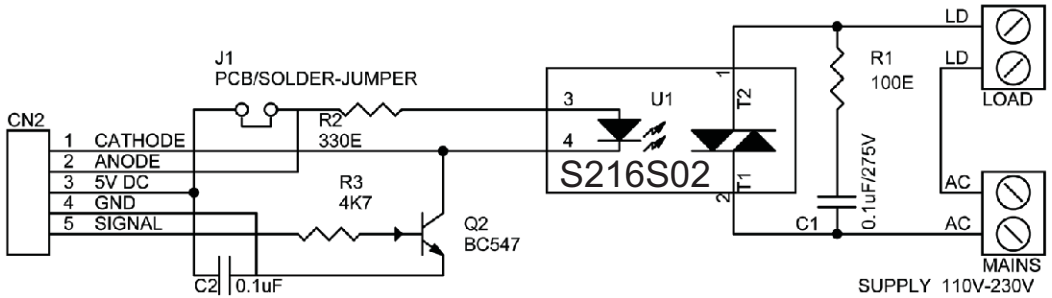
This simple circuit designed around Solid State Relay S216S02 from SHARP. The S216S02 solid State Relay (SSR) is an integration of an infrared emitting diode (IRED), a Phototraic Detector and a main output Traic. These devices are ideally suited for controlling high voltage AC loads with solid state reliability while providing 4KV isolation from input to output.



A solid-state relay (SSR) is an electronic switching device that switches on or off when a small external voltage is applied across its control terminals. SSRs consist of a opto-isolator which responds to an appropriate input (control signal), a solid-state electronic switching device which switches power to the load circuitry, and a coupling mechanism to enable the control signal to activate this switch without mechanical parts. This relay designed to switch either AC load up-to 1KW. It serves the same function as an electromechanical relay, but has no moving parts. Solid-state relays have fast switching speeds compared with electromechanical relays, and have no physical contacts to wear out.

Features

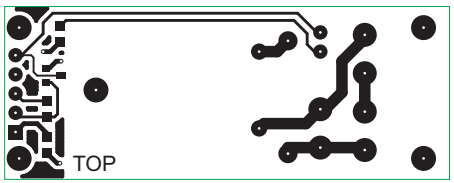
AC Load Upto 16Amps Peak
Maximum Supply input 600V AC
TTL Input Trigger Voltage across Anode and Cathode 3 to 6V @ 20mA
Input Trigger Voltage across Transistor Base 1.5V to 24V DC 5mA
Small PCB with on Board Snubber Circuit for inductive Load

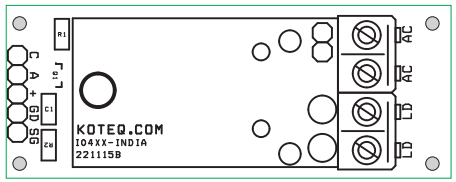


1	1	CN1	2 PIN SCREW TERMINAL
2	1	CN2	5 PIN HEADER
3	1	C1	0.1uF/275V
4	1	C2	0.1uF SMD 0805
5	1	J1	ON BOARD JUMPER
6	1	Q1	BC847 (BC547) SMD
7	1	R1	100E SMD 0805
8	1	R2	330E SMD0805
9	1	R3	4K7 SMD0805
10	1	U1	S216S02 SHARP
11	1	CN3	2 PIN SCREW TERMINAL

CATHODE & ANODE TRIGGER VOLTAGE IN 3V TO 5V @ 20mA
FOR HIGHER VOLTAGE INPUT CHANGE R2 VALUE

SIGNAL VOLTAGE RANGE 1.5V TO 24V DC
CLOSE THE JUMPER FOR SIGNAL INPUT





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