ABSTRACT

This project was intended to design the simple circuit that will be used in cabinet network servers, hence the circuit is useful for the purpose of preventing the network servers inside the cabinet from being damaged.

The circuit is implemented by using the thermistor LM35, a comparator, transistor Q1, relay switch, cooling fan, diode D1 and five resistors R1,R2,R3,R4,R5, Where by thermistor LM35 is connected to the non-inverting input of the comparator and the resistance R4 connected to the inverting input , temperature is sensed by LM35 if it has increased 30C degree its resistance will drop and the voltage will pass through, If the voltage at the non-inverting will be high than the reference voltage at the inverting input the output of the comparator goes high. This will make the transistor Q1 ON and activate the relay switch and therefore the fan will be ON. Also if the temperature is below 30C degree the transistor Q1 will not be ON and therefore the fan will be OFF, Diode D1 prevents back E.M.F