# High voltage inverter de-energizing resistor

What is a high voltage resistor used for?

High value thick-filmVoltage DividersA common application for high voltage resistors is in voltage dividers for the mea urement or control of high voltage rails. Figure 8 shows a typical application in which the output of a high voltage power supply is scaled

What is Act high voltage resistors?

act high voltage resistors is thick-film.TT electronics companies have been leaders in thick-film product development since the 1960s and can now ofer a full range of component styles including compact SMD chips,conventional axial throughhole and space-

What happens if a resistor voltage is higher than OC threshold?

When the voltage across the resistor is higher than the OC detection threshold,the gate driver triggers a fault eventand turns off the gate driver output to protect the system. This implementation approach is very simple and fast. However,as the resistor is in the high current path,this method causes high-power loss.

How does a resistor affect thermal dissipation?

By using a resistor as a thermal dissipation element the power rating is the main cost,weight,and size driver for the resistor. The power curve in Figure 3 shows that the power dissipation naturally decreases exponentially. Figure 4.

What happens when a resistor is connected to a capacitor?

When a resistor is connected in series with a capacitor it forms a simple RC circuit. When voltage is applied,the capacitor will gradually charge up through the resistor until the voltage equalizes. The precharge current will drop to 1/e (36.7%) of its initial value after just one time constant,also known as one Tau,or 1T.

What is a precharge resistor?

The precharge resistor value is determined by the capacitance of the load and the desired precharge time. Imagine that a 400 Volt batery is connected to an inverter with 6 mF of input capacitance and the system needs to precharge in 1.5 seconds.

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