

Quest for the simplest zero voltage switching

Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2007-08/msg02426.html>

- *From:* JoeyB <joseph.burgel@xxxxxx>
 - *Date:* Sun, 12 Aug 2007 13:11:09 -0000
-

All,

I'd like to do proportional control on a 120VAC, 1.5kw heating element (capacitive load) as simple as is possible. Ideally, I'd like to have a single pot that I could adjust from zero to one hundred percent duty cycle input to a zero voltage switching controller chip. This ZVS controller chip would then control the Triac swiching the load. I've found several chips out there that provide zero voltage switching but only one that DIDN'T require a dc voltage for operation AND simply allowed a pot to be connected to the control pins, the Motorola CA3059. Or at least, it was the only one that had a circuit in the data sheet showing such a configuration. Unfortunately, its discontinued and I cannot find any suitable substitute for its operation. The MOC3081 seems like a possibility however it requires a digital input control. This would mean some kind of timer circuit (again DC would probably be required) unless I'm missing some obvious passive solution to providing this input. Any help from the power circuit design pro's out there would be greatly appreciated.

.