

Re: car electronics – rectifier

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From: Tom MacIntyre (tom__macintyre_at_hotmail.com)

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On Fri, 5 Nov 2004 10:10:35 -0500, "Tam/WB2TT" <[t-tammaru@c0mca\\$t.net](mailto:t-tammaru@c0mca$t.net)> wrote:

>
> "Matt Warnock" <warnockmREM@OVEcox.net> wrote in message
> news:UzCid.7639\$ep3.1328@lakeread02...
>> I'm connecting some electronics to the power in my car. I know that the
>> car electrical system can be a little harsh, so I'm wondering the best way
>> to protect delicate electronics. The device in question is an LCD screen
>> I have installed. The device came with an AC power supply and a cigarette
>> lighter adaptor. The adaptor appears to have some power rectifying
>> circuitry. My question is, if I want to connect to this to the power,
>> what kind of circuitry should I build? I was going to use a 12v rectifier
>> to keep the voltage from going over 12 volts, and a cap between the input
>> voltage and ground and another one between the output voltage and ground.
>> Is this a sufficient design for this application, and what value caps
>> should I use? I think I used small ceramic caps .22uf maybe? last time I
>> made something like this. Also, I don't want to cut up my cigarette
>> lighter cord and use the rectifier, but this is an option too.
>>
>> let me know if you have any ideas. thanks!
>>
> I don't know what you mean by 12 V rectifier. If you mean 12 V zener, keep
> in mind that nominal battery voltage with the engine running will probably
> be over 14 volts, and it could go higher under a trouble condition. To limit
> high voltage spikes, you could add an automotive transient suppressor. These
> generally limit at about 20 V.
>
> Tam
>

A zener would require the appropriate resistor in series with it, based on current draw and potential difference, to drop the excess voltage also.

Tom