Re: Source for low current zener in China?

Source: http://sci.tech−archive.net/Archive/sci.electronics.design/2006−09/msg06129.html

- *From*: Joerg <notthisjoergsch@xxxxxxxxxxxxxxxxxxxx>
- *Date*: Thu, 28 Sep 2006 16:24:11 GMT

Hello Robert,

Had a tolerance issue with MMSZ4690 zeners and the manufacturing plant in China said they were quoted 8 weeks for replacement reels. Of course, that won't work.

Does anyone know a brand that is easily obtained in China and offers low current zeners? What I am looking for is a 5.6V version in SOD−123 package that likes

running at
200uA. I
am going to
look for US
sources now
but that
would mean
several
extra days
to get them
there.

Central Semi has a few lines
of low current spec zeners.

Yes, they do. CMHZ4626, but non−stock
everywhere I checked. I found some others
as well but lead times are as high as 18wks
and we need them pretty much right now :−(

Then get a sample of the same part withthe higher current
spec and check on the curvetracer.
Maybe you will get lucky and find the high current part
behaves at the low end.
Some parts get a different partnumber if pass into a different
bin.

That would be hand selecting. Expensive and very difficult to do since it's automated assembly with reel−mount machines. We would have to break the whole reel because you never know whether they'd be all the same. Also, operating in the knee renders the whole scheme shaky because a couple volts drop in the 9V battery could already send it out of range. We need a true (smaller die) low current zener in this case.

Problem is, when I detect excessive impedance and ask the mfgs about it they seem to become silent. Hmm....

NOT true; like i said, test one sample part to see if it behaves.

Have test results on 50 samples now. However the behavior of samples from these two lots is not enough for a release. We need hard data the mfg stands by. Which I got yesterday from one and may be getting next week from another that would then become the 2nd source.

> They all will act in a similar manner − even from lotcode to lotcode (until they change their process, which they will not tell you even if the contract sez so and you do millions of dollars of business).

Ok, I guess they deserve credit here now: Centralsemi did exactly that. They were very open with me about process details and I appreciate that.

> If you do not mind using an oddball part in an un−documented and unspeced manner, try the SOT−363 package dual PNP by Rohm: the UMT1NTN; use the E−B junction as a zener (somewhere in the 7−8V region). Carried by DigiKey.
> If i remember correctly, it is has a well−behaved knee in the nanoamp region and has no negative resistance or oscillations to somewhere in the milliamp region.

Thnaks. However, 7V to 8V wouldn't work here and a new package means a re−layout. In that case we'd do it right and move to the TLV431.

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Regards, Joerg

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