

Mediocre Electrolytic Capacitors ..found through testing at my basement Lab -- Earl VE3AB for ham radio re-capping and projects ..contact me for trustworthy serice and TESTED COMPONENTS - I test my Capacitors b4 I send them out. This last batch I got in Fair to not so Good. I wont be selling them!



I order capacitors in small orders.

I am glad I do it this way. I have been screening out the bad ones.

The best ones and most consistent ones ..so far in my testing.. are the NIPPON KY series. SEE THIS PAGE FOR THE ARTICLE ABOUT THE NIPPON KY SERIES. I am now ordering in many more NIPPON KY electrolytic capacitors so that I can use them for my own repairs but also..I will sell them to hams who are recapping and/or doing repairs and so on.

I SELL ELECTRONICS COMPONENTS (mostly small little orders) to hobbyists and ham operators and CBers and students.

I TEST MY COMPONENTS before I send them out.

I got a couple of small orders of Electrolytic Capacitors in the mail today 2 December 2014. I ordered 20 or so of each of the ones above: namely.. (left to right) 22 uf 50 V CHC brand and they have LOW ESR printed right on them;33 uf 35v CHC brand with Low ESR printed on the case; JWCO brand 100 uf 35 V with Low ESR on it, the fat brown one is possibly a Nippon knockoff (KMG with the rectangle) 470 uf 25v; the next fat one beside it is 330 uf 35v CHC branded with Low ESR marked on the part and last another JWCO branded electrolitic (green color) 10 uf 50 volt and it too has "LOW ESR" markings right on the capacitor. THE ONLY CAPACITOR that wasnt marked "LOW ESR" is the fat brown KMG.

I bought these to try them. I'm likely not going to buy any again. Im glad I only bought 20 of each and I didnt go out and buy more.

WHAT I am trying to do is find a GOOD LOW ESR and Good Overall Electrolytic Brand for my own shop use and to sell to people who are doing re-capping jobs.

I think I have found the brand and type I want for my shop. The NIPPON KY series. They are brown colored and when I measured the ESR they measured at .11 ohms (frequently) and maybe up as high as .14 ohms a couple of times.

TO SEE THE ARTICLE I WROTE CONCERNING THE NIPPON KY capacitors .. GO TO THIS RECENT (2014) [ARTICLE LINK HERE](#).

The results of my testing of this lot of capacitors is listed below (2nd Dec 2014)

22 uf 50 V CHC brand --- 1.0 to 1.1 ohm (not so good at all!) I have requested a "return" on these items I bought from EBAY. I wont be selling these. Im going to put this stock in quarantine and eventually destroy it and return in to hazardous waste depot ! NOTE: I took some large electrolytic capacitors to the hazardous waste pick up here in Elliot Lake, The man in charge told me that he wouldnt take the capacitors because they might contain PCBs. I told him that PCB laden capacitors might have the words: NO FLAMALL or Vitamin Q or asbestol or some other commercial trade name for PCB..but he told me that - in order for him to receive the capacitor.. it would have to say on the capacitor "does not contain PCBs" So there we have it! - I will try taking them to the electronics waste recycling department ..but I will cut the leads off them first.

33 uf 35v CHC brand ---- 1.3 TO 1.7 OHM (not good at all !) I am returning this item on ebay as well. Hope I get my money back.

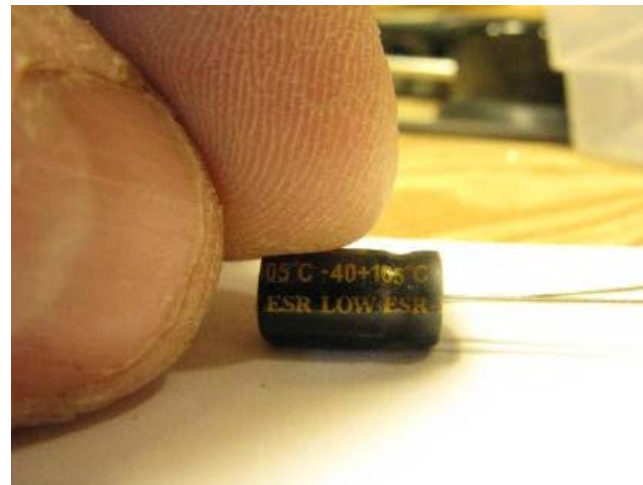
100 uf 35 V - JWCO green color -- .31 ohm average -- not too bad-not nearly as bad as the two listed above. Not as good as the Nippon KY series at .11 ohm or so. -- I may list these for sale but I will list the ESR on the listing. I may use some of these for certain projects on the bench..but I will always sort of use them as little as possible. TRUST BUT VERIFY their ESR (and I use the term TRUST very loosely in this instance.

470 UF 25v : 0.52 to about 0.56 ohms ESR - just sort of OK. I wont be returning these items for my money back. They have very short leads but useable. I may use them for prototyping or sell them on my web site - BUT I will be honest about the ESR and publicize it.

These fat brown ones are possibly a Nippon knockoff (KMG with the rectangle) (It could actually be a genuine Nippon product but I dont see Nippon printed on the capacitor case. Also absent from the case is the wording "low esr"

330 uf 35v CHC branded I measured .20 to .22 ohms ESR. Low ESR marked on the part. Fairly good low ESR and quite acceptable.

10 uf 50 volt (.85 ohms to 1.1 ohms measured ESR) and it too has "LOW ESR" markings right on the capacitor. Much too high ESR. I am returning these for a refund from EBAY.

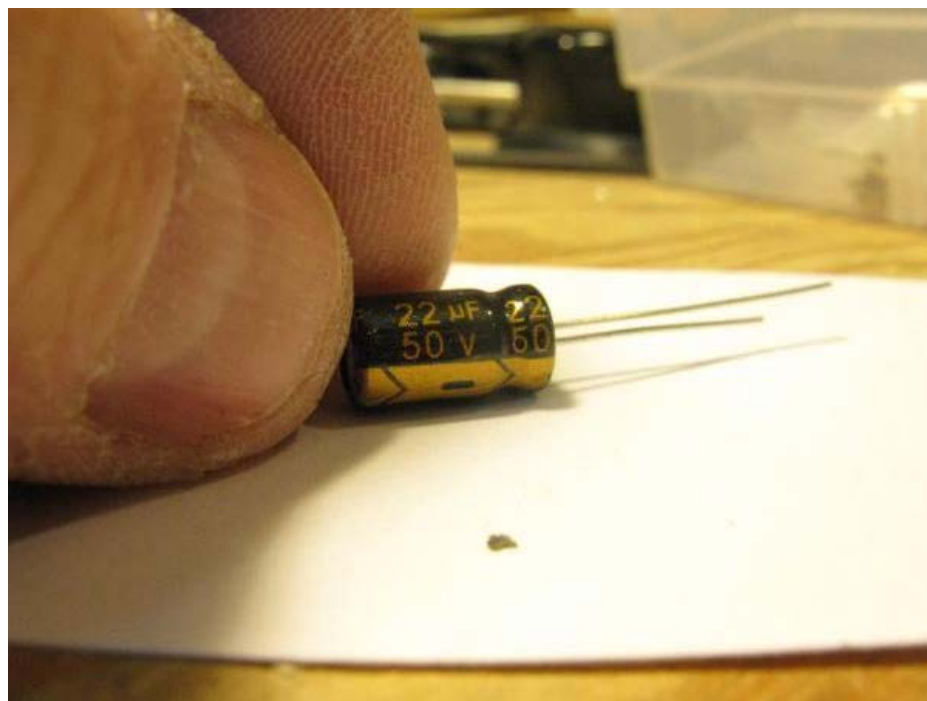


note how the words "low esr" are right on the capacitors themselves. Some are ok some are good some are over 1 ohm esr and I am returning those ones for a refund



Pictured right and above are the (possibly NIPPON) KMG capacitors. Possibly NIPPON because I'm not sure. They could be commercial knock offs.

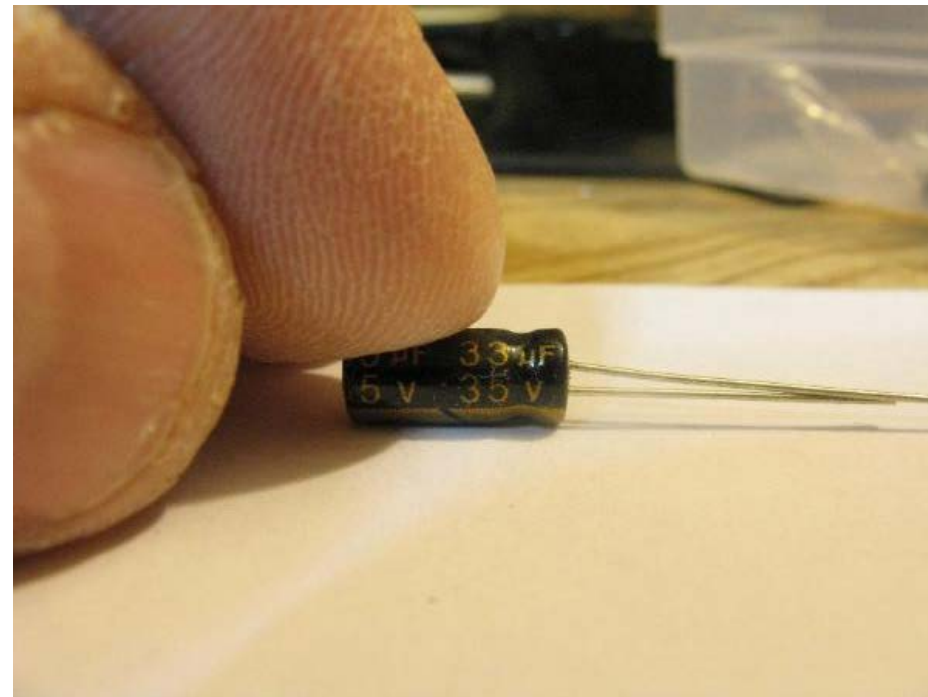
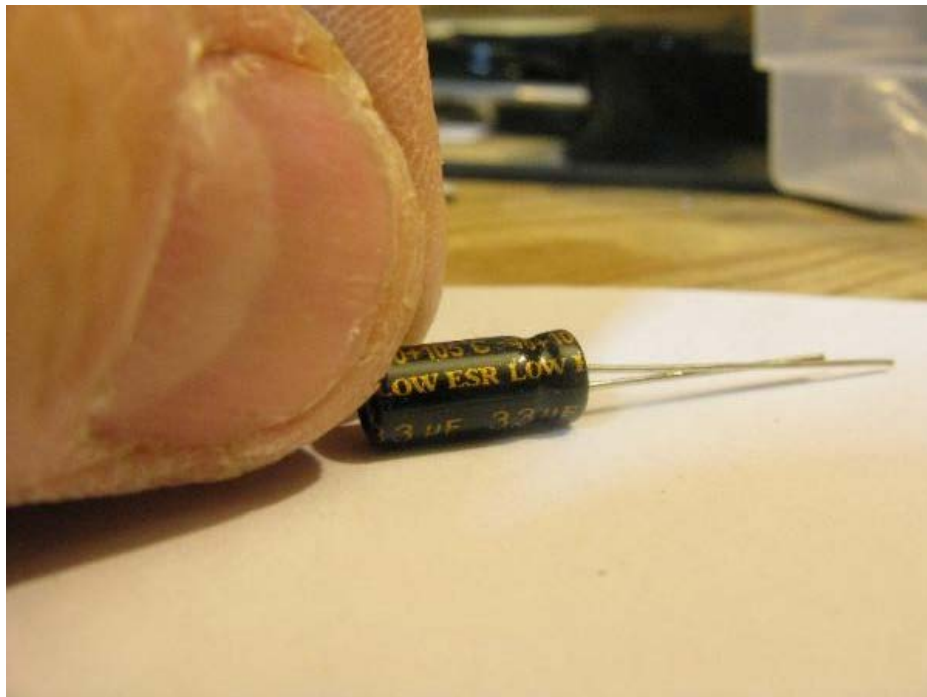
Short leads on these. ESR is OK but not good. The NIPPON KY series that I tested ([see this page for the article](#) about the KY series) had an esr of around 0.11 ohms or so (much better)



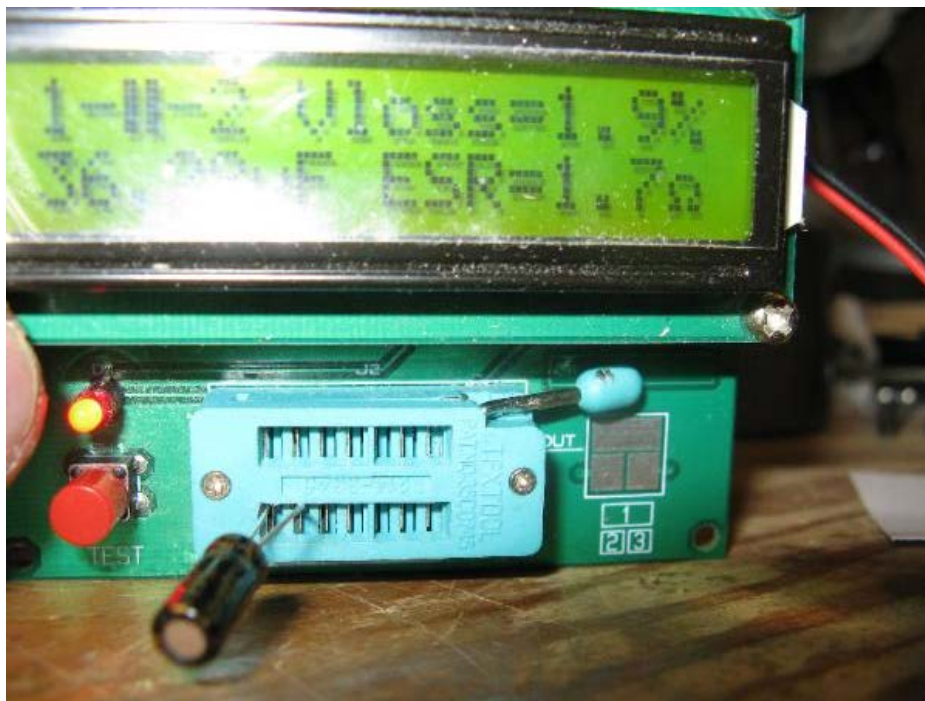
These CHC BRANDED CAPACITORS ABOVE PICTURED.. (they have "low esr" wording on the capacitor) were measured on average to be 1.0 to 1.1 ohm and one of them measured 1.4 ohms. Unacceptable in my mind. I have asked for a refund on ebay.

*** so far on ebay ** I have had good luck from the vendors..with no objections to me returning the item. I ask for a return and they refund me the price. -- I have just submitted some of these ones on this page for refunds. We will see how it goes. IF the vendor objects..I will tell him to go

have a look at this web page.. AND ALSO.. TAKE AN ESR METER AND CHECK YOUR STOCK ! -- SAME GOES FOR THE MANUFACTURER. check your items before releasing them.



1.7 ohms (not good at all) These are CHC branded and you can see the "low esr" printed right on the capacitor.



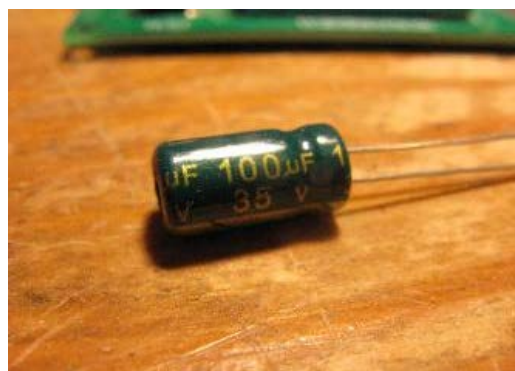
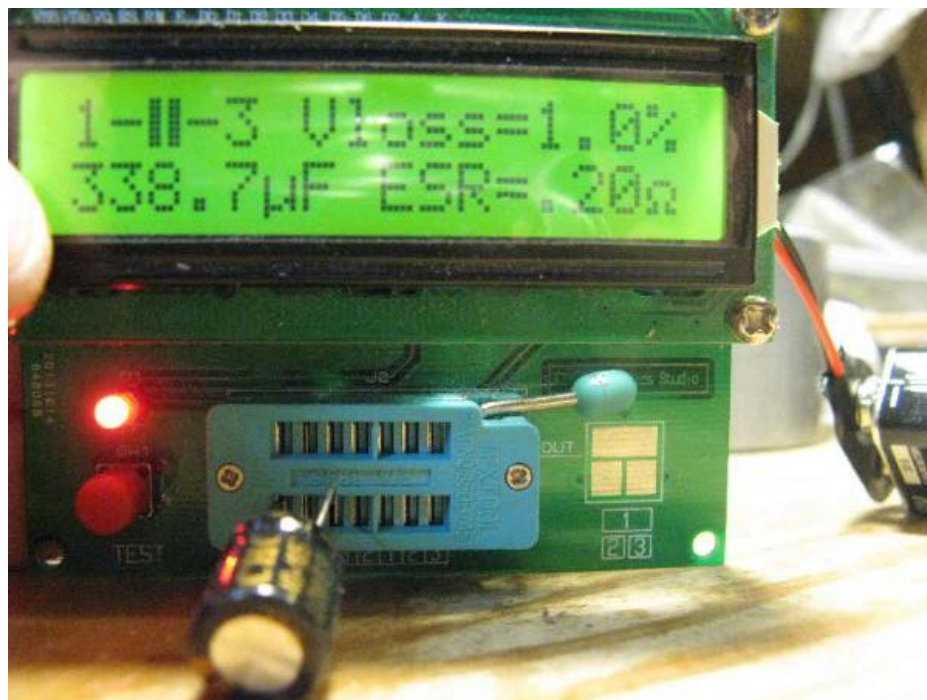
330 uf 35 v CHC branded capacitors.

At around .22 ohms ESR.. seem fine now.

What about later in their life?

I am rather skeptical about the capacitors coming out of Asia.

The Japanese ones are supposed to be superior. Perhaps China will eventually have better Quality Control.



This JWCO capacitor is not too bad at .31 ohms

I wonder what these capacitors will measure after the passage of a few years? They may be

ok for awhile but may deteriorate prematurely.

Who knows? I will be keeping tabs on them and I will be looking at them again in a few years with my measuring instrument. I will see what goes down?



So thats this little article concerning the latest little batch of electrolytic capacitors I have ordered in from China from ebay.

REST ASSURED .. I will not sell you any high ESR electrolytic capacitors. I TEST ALL MY COMPONENTS (except when it comes to complex ICs). -- Other problem components that I have encountered being sold on the market (especially ebay) are BF981 dual gate mosfets. I now screen all my stock (by testing). Certain CB type final output transistors. I have an RF tester (a class c amplifier that I built) to test 5 watt transistors. Some of the transistors I have bought from ebay were very poor and would not amplify. Others would amplify but not nearly as they should.

MY HOME PAGE IS www.earlandrews.com or www.hamelectronicsmagazine.com [CLICK HERE FOR THE ON LINE FREE MAGAZINE](#)

AND I have a new "COMMERCIAL WEB SITE" www.nettyelectronics.com (REGISTERED HOME BASED BUSINESS - NETTY ELECTRONICS . I Sell parts like capacitors, resistors, ICs, transistors and I do some basic type repairs on circuit boards and small assemblies (by mail) at a very reasonable \$10/hr rate. [CLICK HERE FOR THE NETTY ELECTRONICS WEB SITE.](#)

73 Earl VE3AB