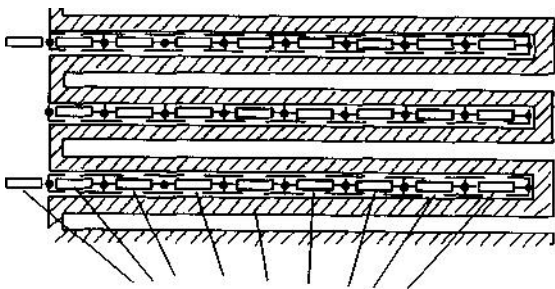


Parasitic parameters of snap-in electrolytic capacitor circuit model

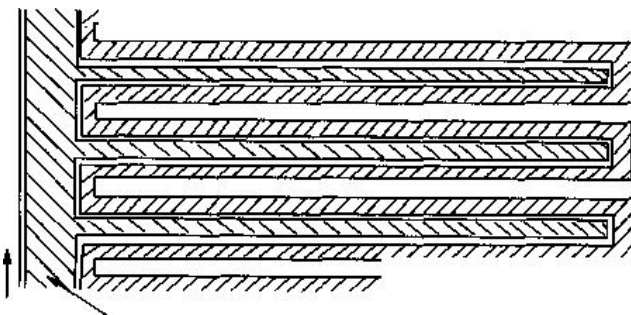
As a Professional Snap-in Electrolytic Capacitors Manufacturer of Jinpei

Snap-in electrolytic capacitor has the very high residual voltage after instantaneous short circuit, the usual explanation is that the dielectric absorption. If medium absorbing really so big, the influence of aluminum electrolytic capacitor frequency characteristic must be very poor, now even better than the real use of aluminum electrolytic capacitor is much worse, after all, low impedance frequency characteristics of the aluminum electrolytic capacitor has done very well, and the latest polymer Snap-in electrolytic capacitor frequency characteristic and even closer to the ceramic capacitor. Therefore, it can be said that aluminum electrolytic capacitor residual voltage is not generated by the dielectric absorption of p is another reason. So what reason be. the author thinks that is of special structure of snap-in electrolytic capacitor electrodes, which so much residual voltage.



Electrolytic capacitor profile chart

In order to increase the electrode area, the snap-in electrolytic capacitor anode aluminum foil to corrosion depth, electrolyte as the cathode and the corrosion depth of anode keep contact closely, as the electrolyte cathode were embedded deeply in the anode deep groove corrosion. Due to the electrolyte resistivity is much higher than the aluminum foil, therefore, corresponds to the cathode and anode deep place to the cathode terminal there will be resistance can not be ignored, corresponding to the depths of the anode electrolytic cathode electrode and lead electrode foil experienced the resistance of the electrolyte to form several RC circuit, from the depths of the corrosion of anode foil for electrolytic cathode to the cathode electrode terminal, in fact, after a lot of RC circuit. when snap-in electrolytic capacitor terminal instantaneous short circuit, do not pass through the RC and rarely after RC circuit of capacitance of electric charge through a short-circuit point discharge, and takes a lot of RC circuit that part to get to draw out the capacitance (i.e., buried deep in the anode foil of electricity and part) of electrode drawn after the response is always late. The RC time constant as long as more than 1/3 of the short circuit time, the electric charge will be saved, when a short circuit, after removing the charge will slowly across the capacitor in the balance, form the residual voltage. Formed by the RC time constant, the greater the residual voltage is high. The depths of the anode, the RC time constant, the greater the and anode corrode the deeper the greater the effective area of the anode electrode, however, more than the resistance of the electrolyte caused by residual voltage effect, the more obvious, at the same time the RC effect will be more apparent as the frequency of high, the phenomenon is the rise and fall of the capacitance on frequency. So the same capacity and rated voltage snap-in electrolytic capacitor size is smaller, the residual electric pressure phenomenon more obvious, frequency characteristics, the worse.



Electrolytic capacitor circuit model diagram