

SOLID ELECTROLYTIC CAPACITORS AND METHOD FOR MANUFACTURING THE SAME

ABSTRACT

A solid electrolytic capacitor of the present invention comprises an positive electrode body, a dielectric layer disposed on the surface of the positive electrode body, a solid electrolyte layer disposed on the surface of the dielectric layer, a negative electrode layer disposed on the surface of the solid electrolyte layer, an positive electrode terminal electrically connected to the positive electrode body, and a negative electrode terminal electrically connected to the negative electrode layer, wherein the negative electrode layer includes a carbon layer and a conductor layer, and the carbon layer contains carbon particles and a benzene compound shown by the chemical formula 1. The whole is covered with facing resin while exposing the positive electrode terminal led out of the positive electrode body and the negative electrode terminal led out of the negative electrode layer. With this configuration, the carbon layer formed is fine and uniform. Accordingly, the contact resistance between the solid electrolyte layer and the carbon layer is reduced, and the contact resistance between the carbon layer and the conductor layer. As a result, it is possible to obtain a solid electrolytic capacitor assuring excellent equivalent series resistance characteristic and capacity utilization factor.

Chemical formula 1

where each of R1, R2, R3, and R4 has H, OH group, COOH group, or alkyl group.

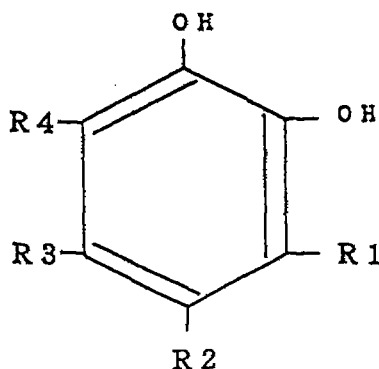


FIGURE 1.