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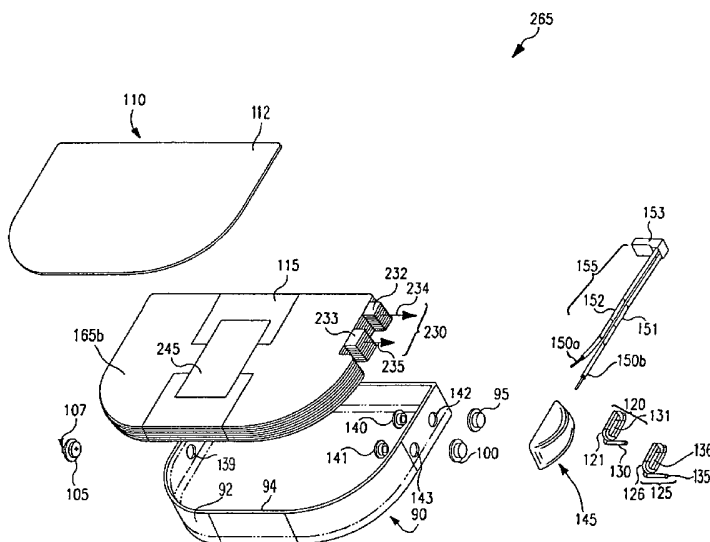
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(54) Title: IMPLANTABLE MEDICAL DEVICE HAVING FLAT ELECTROLYTIC CAPACITOR WITH MINIATURIZED EPOXY CONNECTOR DROPLET



(57) Abstract: Implantable medical devices (IMDs) and their various components, including flat electrolytic capacitors for same, and methods of making and using same, particularly a simplified, miniature capacitor connector block and wiring harness utilizing an epoxy droplet and method of making same are disclosed. An electrode stack assembly and electrolyte are located within the interior case chamber of a hermetically sealed capacitor case. The electrode stack comprises a plurality of capacitor layers stacked in registration upon one another, each capacitor layer comprising a cathode layer having a cathode tab, an anode sub-assembly comprising at least one anode layer having an anode tab, and a separator layer located between adjacent anode and cathode layers, whereby all adjacent cathode layers and anode layers of the stack are electrically insulated from one another by a separator layer. Anode terminal means extend through the

capacitor case side wall for electrically connecting a plurality of the anode tabs to one another and providing an anode connection terminal at the exterior of the case. Cathode terminal means extend through or to an encapsulation area of the capacitor case side wall for electrically connecting a plurality of the cathode tabs to one another and providing a cathode connection terminal at the exterior of the case. A connector assembly is electrically attached to the anode connection terminal for making electrical connection with the anode tabs and to the cathode connection terminal for making electrical connection with the cathode tabs. A connector block is formed of an epoxy droplet adhered to the encapsulation area of the capacitor side wall surrounding and encapsulating the anode and cathode connection terminals and the electrical connections with the connector assembly. The connector block is formed on an encapsulation area of the case side wall of epoxy that is cured for a period of time under elevated temperature conditions while rotating the capacitor assembly.



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INTERNATIONAL SEARCH REPORT

International Application No

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 51302 A (MEDTRONIC INC) 14 October 1999 (1999-10-14) the whole document	1-32
A	EP 0 464 605 A (SANYO ELECTRIC CO) 8 January 1992 (1992-01-08) page 3, line 8 - line 53; figure 4	1-10, 21-32

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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