

## SECTION H — ELECTRICITY

## H01 BASIC ELECTRIC ELEMENTS

**H01G CAPACITORS; CAPACITORS, RECTIFIERS, DETECTORS, SWITCHING DEVICES, LIGHT-SENSITIVE OR TEMPERATURE-SENSITIVE DEVICES OF THE ELECTROLYTIC TYPE** (selection of specified materials as dielectric H01B 3/00; capacitors with potential-jump or surface barrier H01L 29/00)

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## CAPACITORS

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<b>2/00 Details applicable to more than one of groups H01G 4/00-H01G 9/00 [6]</b>	4/18	• • • • • of synthetic material, e.g. derivatives of cellulose (H01G 4/16 takes precedence) [2, 6]
2/02 • Mountings [6]		
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2/06 • • specially adapted for mounting on a printed-circuit support [6]		
2/08 • Cooling arrangements; Heating arrangements; Ventilating arrangements [6]	4/22	• • • • impregnated [2, 6]
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2/16 • • with fusing elements [6]	4/236	• • • leading through the housing, i.e. lead-through [6]
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2/22 • Electrostatic or magnetic shielding [6]	4/248	• • • the terminals embracing or surrounding the capacitive element, e.g. caps (H01G 4/252 takes precedence) [6]
2/24 • Distinguishing marks, e.g. colour coding [6]		
<b>4/00 Fixed capacitors; Processes of their manufacture (electrolytic capacitors H01G 9/00) [2]</b>	4/252	• • • the terminals being coated on the capacitive element (H01G 4/232 takes precedence) [6]
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4/018 • • Dielectrics [6]	4/33	• Thin- or thick-film capacitors (thin- or thick-film circuits H01L 27/00) [6]
4/02 • • • Gas or vapour dielectrics [2, 6]	4/35	• Feed-through capacitors or anti-noise capacitors [6]
4/04 • • • Liquid dielectrics [2, 6]	4/38	• Multiple capacitors, i.e. structural combinations of fixed capacitors [2]
4/06 • • • Solid dielectrics [2, 6]		
4/08 • • • • Inorganic dielectrics [2, 6]	4/40	• Structural combinations of fixed capacitors with other electric elements not covered by this subclass, the structure mainly consisting of a capacitor, e.g. RC combinations (thin- or thick-film circuits H01L 27/00; RC-filters H03H) [2]
4/10 • • • • • Metal-oxide dielectrics [2, 6]		
4/12 • • • • • Ceramic dielectrics [2, 6]		
4/14 • • • • • Organic dielectrics [2, 6]		
4/16 • • • • • of fibrous material, e.g. paper [2, 6]		

**5/00 Capacitors in which the capacitance is varied by mechanical means, e.g. by turning a shaft; Processes of their manufacture [2]**

- 5/01 • Details
- 5/011 • • Electrodes [6]
- 5/012 • • • at least one of the electrodes being a displaceable liquid or powder [6]
- 5/013 • • Dielectrics [6]
- 5/014 • • Housing; Encapsulation [6]
- 5/015 • • Current collectors
- 5/017 • • Temperature compensation [6]
- 5/019 • • Means for correcting the capacitance characteristics [6]
- 5/04 • using variation of effective area of electrode [6]
- 5/06 • • due to rotation of flat or substantially flat electrodes [6]
- 5/08 • • • becoming active in succession [6]
- 5/10 • • due to rotation of helical electrodes [6]
- 5/12 • • due to rotation of part-cylindrical, conical, or spherical electrodes [6]
- 5/14 • • due to longitudinal movement of electrodes [6]
- 5/16 • using variation of distance between electrodes [6]
- 5/18 • • due to change in inclination, e.g. by flexing, by spiral wrapping [6]
- 5/38 • Multiple capacitors, e.g. ganged
- 5/40 • Structural combinations of variable capacitors with other electric elements not covered by this subclass, the structure mainly consisting of a capacitor, e.g. RC combinations (RC-filters H03H) [6]

**7/00 Capacitors in which the capacitance is varied by non-mechanical means; Processes of their manufacture [2]**

- 7/02 • Electrets, i.e. having a permanently-polarised dielectric
- 7/04 • having a dielectric selected for the variation of its permittivity with applied temperature
- 7/06 • having a dielectric selected for the variation of its permittivity with applied voltage, i.e. ferroelectric capacitors (electrets H01G 7/02)

**9/00 Electrolytic capacitors, rectifiers, detectors, switching devices, light-sensitive or temperature-sensitive devices; Processes of their manufacture [2]**

- 9/004 • Details [6]
- 9/008 • • Terminals [6]
- 9/012 • • • specially adapted for solid capacitors [6]
- 9/016 • • • specially adapted for double-layer capacitors [6]
- 9/02 • • Diaphragms; Separators [6]
- 9/022 • • Electrolytes, absorbents (electrolytic or electrophoretic processes, apparatus therefor C25; for primary, secondary or fuel cells H01M) [6]
- 9/025 • • • Solid electrolytes (H01G 9/038 takes precedence) [6]
- 9/028 • • • • Organic semiconducting electrolytes, e.g. TCNQ [6]
- 9/032 • • • • Inorganic semiconducting electrolytes, e.g. MnO<sub>2</sub> [6]

- 9/035 • • • Liquid electrolytes, e.g. impregnating materials (H01G 9/038 takes precedence) [6]
- 9/038 • • • Electrolytes specially adapted for double-layer capacitors [6]
- 9/04 • • Electrodes [6]
- 9/042 • • • characterised by the material (H01G 9/058 takes precedence) [6]
- 9/045 • • • • based on aluminium [6]
- 9/048 • • • characterised by their structure (H01G 9/058 takes precedence) [6]
- 9/052 • • • • Sintered electrodes [6]
- 9/055 • • • • Etched foil electrodes [6]
- 9/058 • • • specially adapted for double-layer capacitors [6]
- 9/06 • • • Mounting in containers [6]
- 9/07 • • Dielectric layers [6]
- 9/08 • • Housing; Encapsulation [6]
- 9/10 • • • Sealing, e.g. of lead-in wires [6]
- 9/12 • • • Vents or other means allowing expansion [6]
- 9/14 • • Structural combinations for modifying, or compensating for, electric characteristics of electrolytic capacitors (impedance networks H03H)
- 9/145 • Liquid electrolytic capacitors (H01G 9/155 takes precedence) [6]
- 9/15 • Solid electrolytic capacitors (H01G 9/155 takes precedence) [6]
- 9/155 • Double-layer capacitors [6]
- 9/16 • specially adapted for use as rectifiers or detectors (H01G 9/22 takes precedence)
- 9/18 • Self-interrupters
- 9/20 • Light-sensitive devices
- 9/21 • Temperature-sensitive devices [6]
- 9/22 • Devices using combined reduction and oxidation, e.g. redox arrangement, solion
- 9/26 • Structural combinations of electrolytic capacitors, rectifiers, detectors, switching devices, light-sensitive or temperature-sensitive devices with each other [6]
- 9/28 • Structural combinations of electrolytic capacitors, rectifiers, detectors, switching devices with other electric components not covered by this subclass [6]

**13/00 Apparatus specially adapted for manufacturing capacitors; Processes specially adapted for manufacturing capacitors not provided for in groups H01G 4/00-H01G 9/00 [2]**

- 13/02 • Machines for winding capacitors [2]
- 13/04 • Drying (in general F26B); Impregnating [2]
- 13/06 • with provision for removing metal surfaces [2]

**15/00 Structural combinations of capacitors or other devices covered by at least two different main groups of this subclass with each other [6]**

**17/00 Structural combinations of capacitors or other devices covered by at least two different main groups of this subclass with other electric elements, not covered by this subclass, e.g. RC combinations (thin- or thick-film circuits H01L 27/00; RC-filters H03H) [6]**