Capacitance

A-Level Physics · Vocabulary in context

Word	Example
capacitor /kəˈpæsɪtə/	A **capacitor** stores charge.
conductor /kənˈdʌktə/	Copper is a good **conductor** of electricity.
insulator /ˈɪnsjuːleɪtə/	Plastic is an **insulator**.
dielectric /ˌdaɪɪˈlektrɪk/	A **dielectric** is the insulator between the plates.
vacuum /ˈvækjuːm/	There is no air in a **vacuum**, so sound cannot travel through it.
potential difference /pəˈtenʃl ˈdɪfrəns/	The **potential difference** across the lamp is 6 V. 6 V
terminal /ˈtɜːmɪnl/	Connect the wire to the positive **terminal**.
neutral /ˈnjuːtrəl/	A **neutral** object has no overall charge.
e.m.f.	The battery has an **e.m.f.** of 1.5 V. 1.5 V
capacitance /kəˈpæsɪtəns/	A large capacitor has a large **capacitance**.
isolated /ˈaɪsəleɪtɪd/	The **isolated** sphere has no other charges near it.
parallel-plate capacitor /ˈpærəlel pleɪt kəˈpæsɪtə/	A **parallel-plate capacitor** has two metal plates facing each other.
farad /ˈfæræd/	The **farad** is the unit of capacitance.

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inversely proportional /ɪnˈvɜːsli prəˈpɔːʃənl/	Pressure is **inversely proportional** to volume.
separation /ˌsepəˈreɪʃn/	Increase the **separation** of the plates.
discharge /dɪsˈtʃɑːdʒ/	The capacitor will **discharge** through the resistor.
earth /ɜːθ/	**Earth** the metal case to make it safe.
in parallel /ɪn ˈpærəlel/	Two capacitors **in parallel** store more charge.
in series /ɪn ˈsɪəriːz/	The lamps are connected **in series**.
energy /ˈenədʒi/	Food gives your body the **energy** it needs to move.
gradient /ˈgreɪdɪənt/	The **gradient** of a distance-time graph gives the speed.
dissipated /ˈdɪsɪpeɪtɪd/	Energy is **dissipated** as heat in the resistor.
spark	A **spark** jumps across the gap.
electromagnetic radiation	Light is **electromagnetic radiation**.
resistor /rɪˈzɪstə/	The **resistor** limits the current.
resistance /rɪˈzɪstəns/	A thin wire has a high **resistance**.
Kirchhoff's second law /ˈkɜːkhɒfs ˈsekənd lɔː/	**Kirchhoff's second law** says the voltages round a loop add up.
exponential decay /ˌekspəˈnenʃl dɪˈkeɪ/	The charge falls by **exponential decay**.

Word	Example
time constant /taɪm ˈkɒnstənt/	The **time constant** is RC. RC
logarithm /ˈlɒgərɪθəm/	Take the **logarithm** of both sides.
intercept /ˌɪntəˈsept/	The line crosses the y-axis at the **intercept**. y
rectifier /ˈrektɪfaɪə/	A **rectifier** changes a.c. into d.c. a.c. d.c.
alternating voltage	The mains supply is an **alternating voltage**.
load /ləʊd/	Hang a 2 N **load** on the wire. 2 N
smooth	The capacitor helps to **smooth** the output.
peak /piːk/	The **peak** voltage is 325 V. 325 V
diode /ˈdaɪəʊd/	The **diode** stops current flowing the wrong way.
ripple /ˈrɪpl/	The output still has a small **ripple**.

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