

































































# Circuit Schematic Symbols




















Reproduced from: [http://library.thinkquest.org/10784/circuit\\_symbols.html](http://library.thinkquest.org/10784/circuit_symbols.html)






















**Note:** The schematics symbols for most major electrical components can be found in this table. However, each component may have numerous possible representations. In cases where there is more than one common symbol we have tried to give an alternate representation.






















COMPONENT	SYMBOL	ALTERNATE
Ammeter		
And Gate		
Antenna, Balanced		
Antenna, General		
Antenna, Loop, Shielded		
Antenna, Loop, Unshielded		
Antenna, Unbalanced		
Attenuator, Fixed		
Attenuator, Variable		
Battery		
Capacitor, Feedthrough		
Capacitor, Fixed, Nonpolarized		
Capacitor, Fixed, Polarized		
Capacitor, Ganged, Variable		
Capacitor, General		


















Capacitor, Variable, Single		
Capacitor, Variable, Split-Stator		
Cathode, Cold		
Cathode, Directly Heated		
Cathode, Indirectly Heated		
Cavity Resonator		
Cell		
Circuit Breaker		
Coaxial Cable		
Crystal, Piezoelectric		
Delay Line		
Diode, General		
Diode, Gunn		
Diode, Light-Emitting		
Diode, Photosensitive		
Diode, Photovoltaic		
Diode, Pin		
Diode, Varactor		
Diode, Zener		

Directional Coupler		
Exclusive-Or Gate		
Female Contact, General		
Ferrite Bead		
Fuse		
Galvanometer		
Ground, Chassis		
Ground, Earth		
Handset		
Headphone, Double		
Headphone, Single		
Inductor, Air-Core		
Inductor, Bifilar		
Inductor, Iron-Core		
Inductor, Tapped		
Inductor, Variable		
Integrated Circuit		
Inverter		
Jack, Coaxial		

Jack, Phone, 2-Conductor	
Jack, Phone, 2-Conductor Interrupting	
Jack, Phone, 3-Conductor	
Jack, Phono	
Key, Telegraph	
Lamp, Incandescent	
Lamp, Neon	
Male Contact, General	
Microphone	
Nand Gate	
Negative Voltage Connection	
Nor Gate	
Operational Amplifier	
Or Gate	
Outlet, Utility, 117-V	
Outlet, Utility, 234-V	
Photocell, Tube	
Plug, Phone, 2-Conductor	
Plug, Phone, 3-Conductor	

Plug, Phono		
Plug, Utility, 117-V		
Plug, Utility, 234-V		
Positive Voltage Connection		
Potentiometer		
Probe, Radio-Frequency		
Rectifier, Semiconductor		
Rectifier, Silicon-Controlled		
Rectifier, Tube-Type		
Relay, DPDT		
Relay, DPST		
Relay, SPDT		
Relay, SPST		
Resistor		
Resonator		
Rheostat		
Saturable Reactor		
Shielding		
Signal Generator		

Speaker		
Switch, DPDT		
Switch, DPST		
Switch, Momentary-Contact		
Switch, Rotary		
Switch, SPDT		
Switch, SPST		
Terminals, General, Balanced		
Terminals, General, Unbalanced		
Test Point		
Thermocouple		
Thyristor		
Transformer, Air-Core		
Transformer, Iron-Core		
Transformer, Tapped Primary		
Transformer, Tapped Secondary		
Transistor, Bipolar, npn		
Transistor, Bipolar, pnp		
Transistor, Field-Effect, N-Channel		

Transistor, Field-Effect, P-Channel		
Transistor, Metal-Oxide, Dual-Gate		
Transistor, Metal-Oxide, Single-Gate		
Transistor, Photosensitive		
Transistor, Unijunction		
Tube, Diode		
Tube, Pentode		
Tube, Photomultiplier		
Tube, Tetrode		
Tube, Triode		
Unspecified Component		
Voltmeter		
Wattmeter		
Wires		
Wires, Connected, Crossing		
Wires, Not Connected, Crossing	