

Electrical Schematic Symbols



Knowledge & Hope

Meters

Voltmeter

Ammeter

Ohmmeter

Wattmeter

Resistors

Fixed Resistor

Variable Resistor/Rheostat

Potentiometer

Tapped Resistor

Thermistor

Voltage Dependent Resistor (VDR)

Capacitors

Fixed Capacitor

Polarized Capacitor

Non-Polarized Capacitor

Variable Capacitor

Feed-Through Capacitor

Inductors

Air Core Inductor

Variable Inductor

Solid Core Inductor

Ferrite Core Inductor

Ferrite Bead

Electromechanical

Single Pole Single Throw Relay (SPST)

Single Pole Double Throw Relay (SPDT)

Double Pole Single Throw Relay (DPST)

Double Pole Double Throw Relay (DPDT)

Fuse

Circuit Breaker

Speaker

Microphone

Stepper Motor

DC Motor

Diodes

Diode

Zener Diode

Schottky Diode

Shockley Diode

Tunnel Diode

Varactor Diode

Gunn Diode

Constant Current Diode

Silicon Controlled Rectifier (SCR)

DIAC (Bilateral Switch)

TRIAC

Silicon Bilateral Switch (SBS)

Silicon Unilateral Switch (SUS)

Bridge Rectifier

Converters

ADC

DAC

Analog to Digital Converter

Digital to Analog Converter

Transistors

Bipolar Junction Transistor (BJT) NPN

Bipolar Junction Transistor (BJT) PNP

Junction Field Effect Transistor (JFET) N-Channel

Junction Field Effect Transistor (JFET) P-Channel

N-Channel MOSFET

P-Channel MOSFET

Darlington Transistor

Unijunction Transistor (UJT) N-Channel

Unijunction Transistor (UJT) P-Channel

Depletion Mode MOSFET (Single Gate) N-Channel

Depletion Mode MOSFET (Single Gate) P-Channel

Depletion Mode MOSFET (Dual Gate) N-Channel

Depletion Mode MOSFET (Dual Gate) P-Channel

Transistors

Enhancement Mode MOSFET N-Channel

Enhancement Mode MOSFET P-Channel

Darlington Transistor

Transformers

Air Core Transformer

Solid Core Transformer

Same Phase Output

180° Out of Phase Output

Tapped Transformer

Variable Transformer

Amplifiers

Basic Opamp

General Opamp

Logic

AND

NAND

OR

NOR

XOR

XNOR

Logic Buffer

NOT

D Flip-flop

T Flip-flop

JK Flip-flop

SR Flip-flop

Multiplexer

Demultiplexer

Wiring

Connected

Not connected

Bus

Shielding

Shielded Wire / Coaxial Cable

Switches

Single Pull Single Throw (SPST)

Single Pull Double Throw (SPDT)

Double Pull Double Throw (DPDT)

Rotary Switch

Optoelectronics

Photo Diode

Light Emitting Diode (LED)

Photo / Light Dependent Resistor (LDR)

Phototransistor

Optoisolator

Incandescent Lamp

Neon Lamp

Photodarlington Transistor

Photo-darlington Transistor with Base

Source/Ground

Earth Ground

Chassis Ground

Analog Ground

Digital Ground

Cell (Single)

Battery (Multiple)

Voltage Source

Current Source

Voltage Source

Current Source

AC Source

RF/Microwave

Balanced Antenna

Unbalanced Antenna

Mixer

Oscillator

High Pass Filter

Low Pass Filter

Band Pass Filter

Crystal Oscillator

Vacuum Tubes

Diode

Triode

Tetrode

Pentode

Push Buttons

Pushbutton (Normally Open)

Pushbutton (Normally Close)

Pushbutton (Double Pull)

Pushbutton (Double Throw)

Others

Male Connector

Female Connector

Connected

Male Coax

Female Coax

Headphone

Handset

Phone Jack

Phone Plug

Thermocouple

Solder Bridge

Electric Bell

Buzzer