

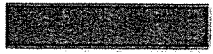

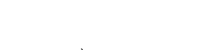





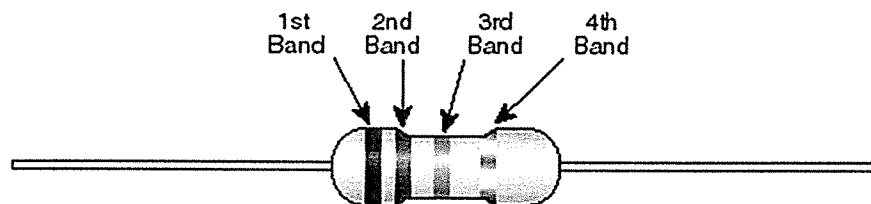


Technique for Remember Color Sequence


Value - Color

	0	-	Black	Big
	1	-	Brown	Boys
	2	-	Red	Race
	3	-	Orange	Our
	4	-	Yellow	Young
	5	-	Green	>Girls
	6	-	Blue	But
	7	-	Violet	Violet
	8	-	Grey	Generally
	9	-	White	Wins

Standard EIA Color Code Table 4 Band: $\pm 2\%$, $\pm 5\%$, and $\pm 10\%$

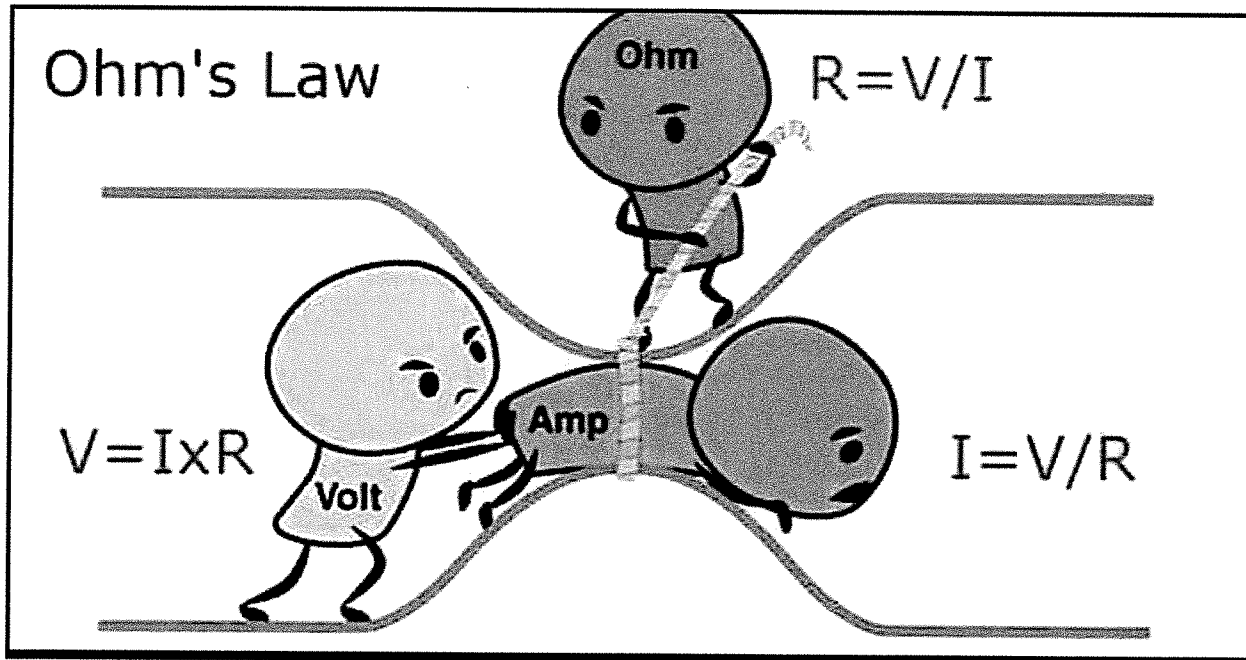


Color	1st Band (1st figure)	2nd Band (2nd figure)	3rd Band (multiplier)	4th Band (tolerance)
Black	0	0	10^0	
Brown	1	1	10^1	
Red	2	2	10^2	$\pm 2\%$
Orange	3	3	10^3	
Yellow	4	4	10^4	
Green	5	5	10^5	
Blue	6	6	10^6	
Violet	7	7	10^7	
Gray	8	8	10^8	
White	9	9	10^9	
Gold			10^{-1}	$\pm 5\%$
Silver			10^{-2}	$\pm 10\%$

Chart Provided By 

Ohm's law

Amps, Ohm's, Voltage



Rules for Parallel and Series Circuits

Parallel Circuits

Parallel circuits have 2 or more paths for current to flow.

VOLTAGE is the SAME across each component of a parallel circuit

The **SUM** of the currents through each path is equal to the total current from the source.

To find the total resistance in a parallel circuit:

$1/R_t = 1/R_1 + 1/R_2 + 1/R_3 + \dots$ (Hint: on a test the total resistance will ALWAYS be lower than the smallest resistance in the circuit.)

Series Circuits

The **SAME CURRENT** flows throughout the circuit.

To find the total resistance in a Series circuit:

$R_T = R_1 + R_2 + R_3 + \dots$

If a circuit is broken at any point in the circuit, no current will flow.

Voltage drops must total up to the total voltage supplied in the circuit. OR (Current x Resistor value)

Example: 12 volt battery is hooked up to a circuit with 2 5 Ohm resistors. The current at each resistor is 1.2A

So, $1.2A \times 5 \text{ Ohms} = 6 \text{ volts}$ at each 5 Ohm resistor. $6V + 6V = 12V$ from the battery.