

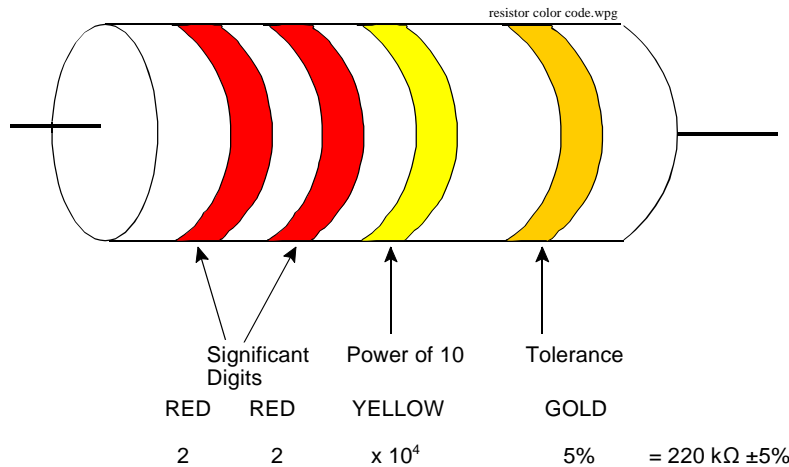
Resistor Color Coding

Many resistors have color bands printed on the body of the resistor. These bands are used to represent the nominal value of the resistance.

Ten colors are used to represent the 10 (roman) digits.

Color Code	
Digit	Color
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White
Tolerance Band	
±20%	no band
±10%	Silver
±5%	Gold

If a resistor is a “5% resistor”, there are 4 color bands on the device. The first two bands are used to specify the significant digits of the resistor value, the third band is used to indicate the power of 10 multiplier, and the last band is used to show the tolerance.



You should memorize the resistor color code. To make it easy to remember, invent a mnemonic. (Here’s mine, “Black berries roasted over young green beans, violates gourmet wisdom.” I use this mnemonic and my fingers to determine the nominal value of a color coded resistor. Then, I use the ohmmeter to check.)

There are 5 color bands on 1% resistors. The first 3 bands are used for the significant digits, the fourth band represents the power of 10 and the fifth band represents the tolerance of the resistor.