## Color Coding of Resistance.

The resistance, having high values are used in different electrical and electronic circuits. They are generally made up of carbon, like $1 \mathrm{k} \Omega, 2 \mathrm{k} \Omega, 5 \mathrm{k} \Omega$ etc. To know the value of resistance color code is used. These code are printed in form of set of rings or strips. By reading the values of color bands, we can estimate the value of resistance.

The carbon resistance has normally four colored rings or strips say $A, B, C$ and $D$ as shown in following figure.


Color band $A$ and $B$ indicate the first two significant figures of resistance in ohm, while the $C$ band gives the decimal multiplier i.e. the number of zeroes that follows the two significant figures $A$ and $B$.

Last band ( $D$ band) indicates the tolerance in percent about the indicated value or in other ward it represents the percentage accuracy of the indicated value.

The tolerance in the case of gold is $\pm 5 \%$ and in silver is $\pm 10 \%$. If only three bands are marked on carbon resistance, then it indicate a tolerance of $20 \%$.

The following table gives the color code for carbon resistance.

| Letters as an aid to <br> memory | Color | Figure <br> $(\mathrm{A}, \mathrm{B})$ | Multiplier <br> (C) |
| :--- | :--- | :--- | :--- |
| B | Black | 0 | 10 o |
| B | Brown | 1 | 101 |
| R | Red | 2 | 102 |
| O | Yellow | 4 | 104 |
| Y | Green | 5 | 105 |
| G | Blue | 6 | 106 |
| B | Violet | 7 | 107 |
| V |  |  | 103 |


| Color | Tolerance <br> (D) |
| :--- | :--- |
| Gold | $5 \%$ |
| Silver | $10 \%$ |
| No-color | $20 \%$ |


| G | Grey | 8 | 108 |
| :--- | :--- | :--- | :--- |
| W | White | 9 | 109 |

Note: To remember the sequence of color code following sentence should kept in memory.
B B R O Y Great Britain Very Good Wife.

