**Note, not for printing:** I have left off the tolerances for Orange (0.05% or 3%), Yellow (0.02% or 4%) and Gray (0.05% or 0.01%). These values have actually changed over time, but are thankfully rare. For an apparently gray band, it is much more likely that the band is really intended to be silver (10%). In fact, in some silver and gold bands, the metallic particles are sometimes left out of the paint to prevent arcing in high-voltage applications, making the paint actually gray or yellow.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Color** | **Digits** | | | **Multiplier** | | **Tolerance** |
| Silver | 1st | 2nd | 3rd digit only for 5 bands | 0.01 | (10-2) | ± 10 % |
| Gold | 0.1 | (10-1) | ± 5 % |
| Black | 0 | 0 | 0 | 1 | (100) |  |
| Brown | 1 | 1 | 1 | 10 | (101) | ± 1 % |
| Red | 2 | 2 | 2 | 100 | (102) | ± 2 % |
| Orange | 3 | 3 | 3 | 1k | (103) |  |
| Yellow | 4 | 4 | 4 | 10k | (104) |  |
| Green | 5 | 5 | 5 | 100k | (105) | ± 0.5 % |
| Blue | 6 | 6 | 6 | 1M | (106) | ± 0.25 % |
| Violet | 7 | 7 | 7 | 10M | (107) | ± 0.1 % |
| Gray | 8 | 8 | 8 | 100M | (108) |  |
| White | 9 | 9 | 9 | 1G | (109) |  |

1

0

100

= 1000 Ω ± 5%

Four bands (2 digits):

Five bands (3 digits):

= 275 Ω ± 1%

2

7

1

5