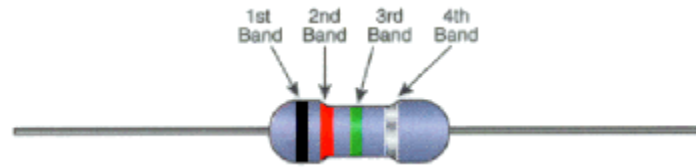
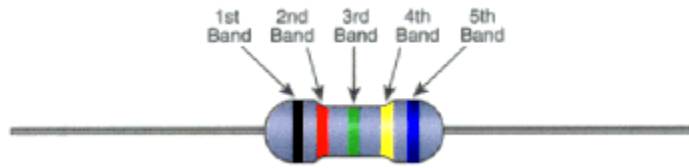


Standard EIA resistor color code



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}	$\pm 10\%$



5 Band: $\pm 1\%$, $\pm 25\%$, $\pm 5\%$, and $\pm 1\%$

Color	1st Band (1st Figure)	2nd Band (2nd Figure)	3rd Band (3rd Figure)	4th Band (Multiplier)	5th Band (Tolerance)
Black	0	0	0	10^0	
Brown	1	1	1	10^1	$\pm 1\%$
Red	2	2	2	10^2	
Orange	3	3	3	10^3	
Yellow	4	4	4	10^4	
Green	5	5	5	10^5	$\pm 5\%$
Blue	6	6	6	10^6	$\pm 25\%$
Violet	7	7	7	10^7	$\pm 1\%$
Gray	8	8	8	10^8	
White	9	9	9	10^9	
Gold				10^{-1}	

To help remember the values, you can use this mnemonic:

Bad Boys Race Our Young Girls But Violet Generally Wins

Black Brown Red Orange Yellow Green Blue Violet Gray White