

Version:  
January 16, 2017



# Inductor Color Codes

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## How to read the inductor codes

### How to read the inductor codes

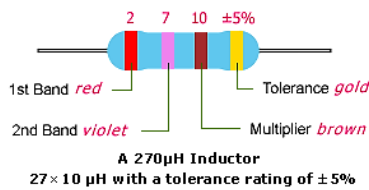
First find the tolerance band, it will typically be gold (5%) and sometimes silver (10%).

Starting from the other end, identify the first band - write down the number associated with that color; in this case Red is 2.

Now 'read' the next color, here it is Violet so write down a 7 next to the two. (You should have '27' so far.)

Now read the third or 'multiplier' band and write down that number of 10.

In this example, the 'multiplier' band is Brown so we get 270  $\mu$ H.

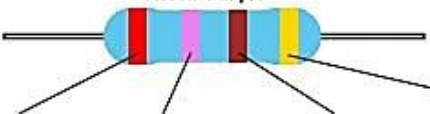


If the 'multiplier' band is Gold move the decimal point one to the left.

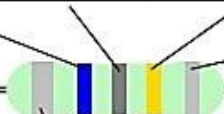
If the 'multiplier' band is Silver move the decimal point two places to the left.

**TOKEN INDUCTOR COLOR CODE**

Result is in  $\mu$ H

**4-BAND-CODE**  **270 $\mu$ H ± 5%**

| COLOR  | 1st BAND | 2nd BAND | MULTIPLIER         | TOLERANCE      |
|--------|----------|----------|--------------------|----------------|
| Black  | 0        | 0        | 1                  | ± 20%          |
| Brown  | 1        | 1        | 10                 | Military ± 1%  |
| Red    | 2        | 2        | 100                | Military ± 2%  |
| Orange | 3        | 3        | 1,000              | Military ± 3%  |
| Yellow | 4        | 4        | 10,000             | Military ± 4%  |
| Green  | 5        | 5        |                    |                |
| Blue   | 6        | 6        |                    |                |
| Violet | 7        | 7        |                    |                |
| Grey   | 8        | 8        |                    |                |
| White  | 9        | 9        |                    |                |
| None   |          |          |                    | Military ± 20% |
| Gold   |          |          | 0.1 / Mil. Dec. PL | Both ± 5%      |
| Silver |          |          | 0.01               | Both ± 10%     |

**MILITARY-CODE**  **6.8 $\mu$ H ± 10%**

Military Identifier (Silver)

TOKEN INDUCTOR COLOR CODE (EIA Standard & Military Standard)

### Inductance Tolerance Codes

| Symbol           | B       | C      | S      | D      | F   | G   | H   | J   | K    | L    | M    | V    | N    |
|------------------|---------|--------|--------|--------|-----|-----|-----|-----|------|------|------|------|------|
| <b>Tolerance</b> | ±0.15nH | ±0.2nH | ±0.3nH | ±0.5nH | ±1% | ±2% | ±3% | ±5% | ±10% | ±15% | ±20% | ±25% | ±30% |

## ▶ Inductor Codes

### Inductance Codes

| nH  | μH    | SAP |
|-----|-------|-----|
| 1   |       | 1N0 |
| 1.2 |       | 1N2 |
| 1.5 |       | 1N5 |
| 1.8 |       | 1N8 |
| 2.2 |       | 2N2 |
| 2.7 |       | 2N7 |
| 3.3 |       | 3N3 |
| 3.9 |       | 3N9 |
| 4.7 |       | 4N7 |
| 5.6 |       | 5N6 |
| 6.8 |       | 6N8 |
| 8.2 |       | 8N2 |
| 10  | 0.01  | 10N |
| 12  | 0.012 | 12N |
| 15  | 0.015 | 15N |
| 18  | 0.018 | 18N |
| 22  | 0.022 | 22N |
| 27  | 0.027 | 27N |
| 33  | 0.033 | 33N |
| 39  | 0.039 | 39N |
| 47  | 0.047 | 47N |
| 56  | 0.056 | 56N |
| 68  | 0.068 | 68N |
| 82  | 0.082 | 82N |
| 100 | 0.1   | R10 |
| 120 | 0.12  | R12 |
| 150 | 0.15  | R15 |
| 180 | 0.18  | R18 |
| 220 | 0.22  | R22 |
| 270 | 0.27  | R27 |
| 330 | 0.33  | R33 |
| 390 | 0.39  | R39 |
| 470 | 0.47  | R47 |
| 560 | 0.56  | R56 |
| 680 | 0.68  | R68 |

| nH  | μH   | SAP |
|-----|------|-----|
| 820 | 0.82 | R82 |
|     | 1    | 1R0 |
|     | 1.2  | 1R2 |
|     | 1.5  | 1R5 |
|     | 1.8  | 1R8 |
|     | 2.2  | 2R2 |
|     | 2.7  | 2R7 |
|     | 3.3  | 3R3 |
|     | 3.9  | 3R9 |
|     | 4.7  | 4R7 |
|     | 5.6  | 5R6 |
|     | 6.8  | 6R8 |
|     | 8.2  | 8R2 |
|     | 10   | 100 |
|     | 12   | 120 |
|     | 15   | 150 |
|     | 18   | 180 |
|     | 22   | 220 |
|     | 27   | 270 |
|     | 33   | 330 |
|     | 39   | 390 |
|     | 47   | 470 |
|     | 56   | 560 |
|     | 68   | 680 |
|     | 82   | 820 |
|     | 100  | 101 |
|     | 120  | 121 |
|     | 150  | 151 |
|     | 180  | 181 |
|     | 220  | 221 |
|     | 270  | 271 |
|     | 330  | 331 |
|     | 390  | 391 |
|     | 470  | 471 |
|     | 560  | 561 |
|     | 680  | 681 |
|     | 820  | 821 |
|     | 1000 | 102 |

| nH | μH      | SAP |
|----|---------|-----|
|    | 1200    | 122 |
|    | 1500    | 152 |
|    | 1800    | 182 |
|    | 2200    | 222 |
|    | 2700    | 272 |
|    | 3300    | 332 |
|    | 3900    | 392 |
|    | 4700    | 472 |
|    | 5600    | 562 |
|    | 6800    | 682 |
|    | 8200    | 822 |
|    | 10 000  | 103 |
|    | 12 000  | 123 |
|    | 15 000  | 153 |
|    | 18 000  | 183 |
|    | 22 000  | 223 |
|    | 27 000  | 273 |
|    | 33 000  | 333 |
|    | 39 000  | 393 |
|    | 47 000  | 473 |
|    | 56 000  | 563 |
|    | 68 000  | 683 |
|    | 82 000  | 823 |
|    | 100 000 | 104 |
|    | 120 000 | 124 |
|    | 150 000 | 154 |
|    | 180 000 | 184 |
|    | 220 000 | 224 |
|    | 270 000 | 274 |
|    | 330 000 | 334 |