

# CONFORMAL COATED INDUCTORS

## ICF-1

The ICF-1 type choke coil incorporates a high-performance ferrite core in a small special structure. It is resin coated and has inductance values up to 1,000  $\mu\text{H}$ .

## FEATURES

- 1) Incorporation of a special lead wire structure completely eliminates defects inherent in existing axial lead type products and prevents lead breakage.
- 2) The special magnetic core structure permits the product to have reduced size, high-Q and high self-resonant frequencies.
- 3) The products are epoxy-resin coated to protect against humidity and to prolong life.

## ORDERING INFORMATION

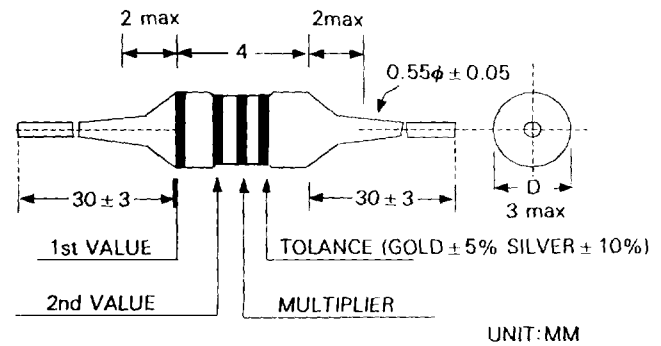
ICF-1      47 $\mu\text{H}$       10  
 (1)      (2)      (3)

- (1) Type
- (2) Inductance ( $\mu\text{H}$ )
- (3) Inductance Tolerance ( $\pm 5\%$ ,  $\pm 10\%$  or  $\pm 20\%$ )

## CHARACTERISTICS

Style.....Axial lead type  
 Max. temperature rise.....20° C  
 Ambient temperature.....80° C  
 Rated temperature range.....-20° C to + 100° C  
 Dielectric breakdown voltage.....250 V<sub>rms</sub>  
 Rated current .....Based on temperature rise  
 Terminal tensile strength .....1.0 kg min.  
 Terminal bending strength.....0.3 kg min.  
 Moisture resistance characteristic .....  
 ..... $\Delta L/L \leq \pm 5\%$ ,  $\Delta Q/Q \leq \pm 20\%$

## COLOR CODE



| Color code | Significant figure | Multiplier | Inductance tolerance (%) |
|------------|--------------------|------------|--------------------------|
| Black      | 0                  | 1          | —                        |
| Brown      | 1                  | 10         | —                        |
| Red        | 2                  | 100        | —                        |
| Orange     | 3                  | 1000       | —                        |
| Yellow     | 4                  | —          | —                        |
| Green      | 5                  | —          | —                        |
| Blue       | 6                  | —          | —                        |
| Violet     | 7                  | —          | —                        |
| Gray       | 8                  | —          | —                        |
| White      | 9                  | —          | —                        |
| Black      | —                  | —          | $\pm 20$                 |
| Silver     | —                  | 0.01       | $\pm 10$                 |
| Gold       | —                  | 0.1        | $\pm 5$                  |

# FOR VHF & UHF

## ICF-1 TYPE

| Inductance<br>( $\mu$ H) | Q<br>Min. | Testing<br>Frequency<br>of L & Q<br>(MHz) | S.R.F.<br>(MHz)<br>Min. | DC<br>Resistance<br>( $\Omega$ )<br>Max. | Rated<br>DC Current<br>(mA)<br>Max. | Color code |     |     |     |
|--------------------------|-----------|---|-------------------------|--|-------------------------------------|------------|-----|-----|-----|
|                          |           |   |                         |  |                                     | 1st        | 2nd | 3rd | 4th |
| 22Nh $\pm$ 20%(460.5pf)  | 40        | 50MHZ                                     | 500                     | 0.01                                     | 520                                 | GD         | BK  | RD  | RD  |
| 33Nh $\pm$ 20%(306.8pf)  | 40        | 50MHZ                                     | 490                     | 0.02                                     | 500                                 | GD         | BK  | OE  | OE  |
| 39Nh $\pm$ 20%(259.6pf)  | 40        | 50MHZ                                     | 480                     | 0.02                                     | 500                                 | GD         | BK  | OE  | WE  |
| 47Nh $\pm$ 20%(215pf)    | 40        | 50MHZ                                     | 480                     | 0.03                                     | 500                                 | GD         | BK  | YW  | VT  |
| 56Nh $\pm$ 20%(180.8pf)  | 40        | 50MHZ                                     | 470                     | 0.045                                    | 460                                 | GD         | BK  | GN  | BE  |
| 68Nh $\pm$ 20%(149pf)    | 40        | 50MHZ                                     | 470                     | 0.05                                     | 460                                 | GD         | BK  | BE  | GY  |
| 82Nh $\pm$ 20%(123.5pf)  | 40        | 50MHZ                                     | 470                     | 0.05                                     | 460                                 | GD         | BK  | GY  | RD  |
| 0.1 $\pm$ 10%            | 40        | 25.2                                      | 470                     | 0.08                                     | 700                                 | Bn         | Bk  | S   | S   |
| 0.12 $\pm$ 10%           | 40        | 25.2                                      | 450                     | 0.08                                     | 700                                 | Bn         | R   | S   | S   |
| 0.15 $\pm$ 10%           | 40        | 25.2                                      | 430                     | 0.09                                     | 700                                 | Bn         | Gn  | S   | S   |
| 0.18 $\pm$ 10%           | 40        | 25.2                                      | 410                     | 0.10                                     | 700                                 | Bn         | Gy  | S   | S   |
| 0.22 $\pm$ 10%           | 40        | 25.2                                      | 380                     | 0.12                                     | 700                                 | R          | R   | S   | S   |
| 0.27 $\pm$ 10%           | 40        | 25.2                                      | 360                     | 0.15                                     | 680                                 | R          | V   | S   | S   |
| 0.33 $\pm$ 10%           | 40        | 25.2                                      | 350                     | 0.16                                     | 680                                 | O          | O   | S   | S   |
| 0.39 $\pm$ 10%           | 40        | 25.2                                      | 320                     | 0.18                                     | 680                                 | O          | W   | S   | S   |
| 0.47 $\pm$ 10%           | 40        | 25.2                                      | 300                     | 0.26                                     | 650                                 | Y          | V   | S   | S   |
| 0.56 $\pm$ 10%           | 40        | 25.2                                      | 280                     | 0.38                                     | 500                                 | Gn         | Be  | S   | S   |
| 0.68 $\pm$ 10%           | 40        | 25.2                                      | 250                     | 0.42                                     | 500                                 | Be         | Gy  | S   | S   |
| 0.82 $\pm$ 10%           | 40        | 25.2                                      | 200                     | 0.55                                     | 450                                 | Gy         | R   | S   | S   |
| 1.0 $\pm$ 10%            | 40        | 25.2                                      | 180                     | 0.12                                     | 700                                 | Bn         | Bk  | Gd  | S   |
| 1.2 $\pm$ 10%            | 40        | 7.96                                      | 165                     | 0.18                                     | 700                                 | Bn         | R   | Gd  | S   |
| 1.5 $\pm$ 10%            | 45        | 7.96                                      | 150                     | 0.20                                     | 700                                 | Bn         | Gn  | Gd  | S   |
| 1.8 $\pm$ 10%            | 50        | 7.96                                      | 125                     | 0.23                                     | 655                                 | Bn         | Gy  | Gd  | S   |
| 2.2 $\pm$ 10%            | 50        | 7.96                                      | 85                      | 0.25                                     | 630                                 | R          | R   | Gd  | S   |
| 2.7 $\pm$ 10%            | 50        | 7.96                                      | 80                      | 0.28                                     | 595                                 | R          | V   | Gd  | S   |
| 3.3 $\pm$ 10%            | 50        | 7.96                                      | 75                      | 0.30                                     | 575                                 | O          | O   | Gd  | S   |
| 3.9 $\pm$ 10%            | 45        | 7.96                                      | 65                      | 0.32                                     | 555                                 | O          | W   | Gd  | S   |
| 4.7 $\pm$ 10%            | 45        | 7.96                                      | 45                      | 0.35                                     | 530                                 | Y          | V   | Gd  | S   |
| 5.6 $\pm$ 10%            | 45        | 7.96                                      | 36                      | 0.40                                     | 500                                 | Gn         | Be  | Gd  | S   |
| 6.8 $\pm$ 10%            | 40        | 7.96                                      | 30                      | 0.45                                     | 470                                 | Be         | Gy  | Gd  | S   |
| 8.2 $\pm$ 10%            | 40        | 7.96                                      | 28                      | 0.55                                     | 425                                 | Gy         | R   | Gd  | S   |
| 10 $\pm$ 10%             | 40        | 7.96                                      | 22                      | 0.72                                     | 370                                 | Bn         | Bk  | Bk  | S   |
| 12 $\pm$ 10%             | 45        | 2.52                                      | 20                      | 0.80                                     | 350                                 | Bn         | R   | Bk  | S   |
| 15 $\pm$ 10%             | 50        | 2.52                                      | 16                      | 0.88                                     | 335                                 | Bn         | Gn  | Bk  | S   |
| 18 $\pm$ 10%             | 50        | 2.52                                      | 15                      | 1.00                                     | 315                                 | Bn         | Gy  | Bk  | S   |
| 22 $\pm$ 10%             | 50        | 2.52                                      | 13                      | 1.20                                     | 285                                 | R          | R   | Bk  | S   |
| 27 $\pm$ 10%             | 50        | 2.52                                      | 11                      | 1.35                                     | 270                                 | R          | V   | Bk  | S   |
| 33 $\pm$ 10%             | 50        | 2.52                                      | 10                      | 1.50                                     | 255                                 | O          | O   | Bk  | S   |
| 39 $\pm$ 10%             | 50        | 2.52                                      | 9.5                     | 1.70                                     | 240                                 | O          | W   | Bk  | S   |
| 47 $\pm$ 10%             | 60        | 2.52                                      | 8.5                     | 2.30                                     | 205                                 | Y          | V   | Bk  | S   |
| 56 $\pm$ 10%             | 60        | 2.52                                      | 7.5                     | 2.60                                     | 195                                 | Gn         | Be  | Bk  | S   |
| 68 $\pm$ 10%             | 60        | 2.52                                      | 6.5                     | 3.20                                     | 185                                 | Be         | Gy  | Bk  | S   |
| 82 $\pm$ 10%             | 60        | 2.52                                      | 6.0                     | 3.50                                     | 175                                 | G          | R   | Bk  | S   |
| 100 $\pm$ 10%            | 60        | 2.52                                      | 5.5                     | 3.80                                     | 165                                 | Bn         | Bk  | Bn  | S   |
| 120 $\pm$ 10%            | 60        | 0.796                                     | 5.4                     | 3.80                                     | 160                                 | Bn         | R   | Bn  | S   |
| 150 $\pm$ 10%            | 60        | 0.796                                     | 4.75                    | 4.40                                     | 150                                 | Bn         | Gn  | Bn  | S   |
| 180 $\pm$ 10%            | 60        | 0.796                                     | 4.35                    | 5.00                                     | 140                                 | Bn         | Gy  | Bn  | S   |
| 220 $\pm$ 10%            | 60        | 0.796                                     | 4.0                     | 5.70                                     | 130                                 | R          | R   | Bn  | S   |
| 270 $\pm$ 10%            | 60        | 0.796                                     | 3.7                     | 6.50                                     | 120                                 | R          | V   | Bn  | S   |
| 330 $\pm$ 10%            | 60        | 0.796                                     | 3.4                     | 9.50                                     | 100                                 | O          | O   | Bn  | S   |
| 390 $\pm$ 10%            | 60        | 0.796                                     | 2.8                     | 10.5                                     | 95                                  | O          | W   | Bn  | S   |
| 470 $\pm$ 10%            | 60        | 0.796                                     | 2.40                    | 12.5                                     | 90                                  | Y          | V   | Bn  | S   |
| 560 $\pm$ 10%            | 60        | 0.796                                     | 2.20                    | 14.5                                     | 85                                  | Gn         | Be  | Bn  | S   |
| 680 $\pm$ 10%            | 60        | 0.796                                     | 2.0                     | 18.0                                     | 75                                  | Be         | Gy  | Bn  | S   |
| 820 $\pm$ 10%            | 60        | 0.796                                     | 1.6                     | 23.7                                     | 65                                  | Gy         | R   | Bn  | S   |
| 1000 $\pm$ 10%           | 60        | 0.796                                     | 1.15                    | 30                                       | 60                                  | Bn         | Bk  | R   | S   |