

Inductors, Epoxy Conformal Coated, Axial Leaded



ELECTRICAL SPECIFICATIONS

Inductance Range: 0.27 μ H to 1000 μ H

Inductance Tolerance: $\pm 10\%$ from 0.1 μ H to 1000 μ H standard, $\pm 5\%$ optional

Operating Temperature Range: -20 °C to +105 °C

Dielectric Strength: 250 V_{RMS}

MECHANICAL SPECIFICATIONS

Terminal Strength: Pull = 5 pounds, twist = 360 °C x 3

Protection: Epoxy uniform roll coated

Leads: Tinned copper

ENVIRONMENTAL SPECIFICATIONS

Maximum Temperature Rise: + 20 °C

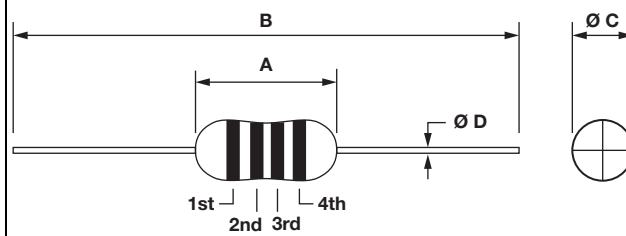
FEATURES

- High performance ferrite core is used in this epoxy conformally coated choke which allows for inductance values to 1000 μ H
- Axial lead type, small lightweight design
- Special magnetic core structure contributes to high Q and self-resonant frequencies
- Treated with epoxy resin coating for humidity resistance to ensure long life
- Heat resistant adhesives and special structural design for effective open circuit measurement
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE

DIMENSIONS in inches [millimeters]



| MODEL | A (MAX.) | B | C (MAX.) | D |
|--------|-----------------|---------------------------------------|----------------|--|
| IRF-36 | 0.394 [10.0] | 2.480 \pm 0.039 [63.0 \pm 1.0] | 0.157 [4.0] | 0.026 \pm 0.002 [0.65 \pm 0.05] |

STANDARD ELECTRICAL SPECIFICATIONS

| MODEL | IND. (μ H) | TOL. (%) | Q MIN. | TEST FREQUENCY (MHz) | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) |
|--------|-----------------|---------------------|--------|----------------------|----------------|-----------------------|-----------------------|
| IRF-36 | 0.27 | $\pm 20\%$ | 25 | 25.2 | 250 | 0.24 | 1320 |
| IRF-36 | 0.33 | $\pm 20\%$ | 25 | 25.2 | 240 | 0.28 | 1280 |
| IRF-36 | 0.39 | $\pm 20\%$ | 25 | 25.2 | 230 | 0.32 | 1200 |
| IRF-36 | 0.47 | $\pm 20\%$ | 25 | 25.2 | 220 | 0.36 | 1150 |
| IRF-36 | 0.56 | $\pm 20\%$ | 25 | 25.2 | 215 | 0.41 | 1100 |
| IRF-36 | 0.68 | $\pm 20\%$ | 25 | 25.2 | 210 | 0.47 | 1030 |
| IRF-36 | 0.82 | $\pm 20\%$ | 45 | 25.2 | 172 | 0.24 | 980 |
| IRF-36 | 1.0 | $\pm 5\%, \pm 10\%$ | 45 | 25.2 | 140 | 0.24 | 920 |
| IRF-36 | 1.2 | $\pm 5\%, \pm 10\%$ | 50 | 7.96 | 140 | 0.27 | 880 |
| IRF-36 | 1.5 | $\pm 5\%, \pm 10\%$ | 50 | 7.96 | 131 | 0.30 | 830 |
| IRF-36 | 1.8 | $\pm 5\%, \pm 10\%$ | 55 | 7.96 | 121 | 0.32 | 790 |
| IRF-36 | 2.2 | $\pm 5\%, \pm 10\%$ | 55 | 7.96 | 110 | 0.35 | 750 |
| IRF-36 | 2.7 | $\pm 5\%, \pm 10\%$ | 60 | 7.96 | 100 | 0.35 | 720 |
| IRF-36 | 3.3 | $\pm 5\%, \pm 10\%$ | 65 | 7.96 | 94 | 0.35 | 670 |
| IRF-36 | 3.9 | $\pm 5\%, \pm 10\%$ | 65 | 7.96 | 86 | 0.37 | 640 |
| IRF-36 | 4.7 | $\pm 5\%, \pm 10\%$ | 70 | 7.96 | 80 | 0.39 | 620 |
| IRF-36 | 5.6 | $\pm 5\%, \pm 10\%$ | 70 | 7.96 | 74 | 0.43 | 590 |
| IRF-36 | 6.8 | $\pm 5\%, \pm 10\%$ | 75 | 7.96 | 68 | 0.48 | 550 |
| IRF-36 | 8.2 | $\pm 5\%, \pm 10\%$ | 70 | 7.96 | 53 | 0.52 | 530 |
| IRF-36 | 10 | $\pm 5\%, \pm 10\%$ | 70 | 7.96 | 45 | 0.58 | 500 |
| IRF-36 | 12 | $\pm 5\%, \pm 10\%$ | 70 | 2.52 | 34 | 0.63 | 480 |
| IRF-36 | 15 | $\pm 5\%, \pm 10\%$ | 70 | 2.52 | 20 | 0.72 | 460 |
| IRF-36 | 18 | $\pm 5\%, \pm 10\%$ | 65 | 2.52 | 14 | 0.77 | 430 |
| IRF-36 | 22 | $\pm 5\%, \pm 10\%$ | 40 | 2.52 | 9.9 | 0.84 | 410 |
| IRF-36 | 27 | $\pm 5\%, \pm 10\%$ | 55 | 2.52 | 7.6 | 0.94 | 390 |

**STANDARD ELECTRICAL SPECIFICATIONS**

| MODEL | IND. (μ H) | TOL. (%) | Q MIN. | TEST FREQUENCY (MHz) | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) |
|--------|--------------------|------------------------|-----------|-------------------------|-------------------|--------------------------|--------------------------|
| IRF-36 | 33 | $\pm 5\%$, $\pm 10\%$ | 55 | 2.52 | 6.3 | 1.03 | 370 |
| IRF-36 | 39 | $\pm 5\%$, $\pm 10\%$ | 50 | 2.52 | 6.3 | 1.12 | 350 |
| IRF-36 | 47 | $\pm 5\%$, $\pm 10\%$ | 45 | 2.52 | 6.3 | 1.22 | 340 |
| IRF-36 | 56 | $\pm 5\%$, $\pm 10\%$ | 40 | 2.52 | 6.2 | 1.34 | 320 |
| IRF-36 | 68 | $\pm 5\%$, $\pm 10\%$ | 40 | 2.52 | 5.7 | 1.47 | 306 |
| IRF-36 | 82 | $\pm 5\%$, $\pm 10\%$ | 35 | 2.52 | 5.3 | 1.62 | 290 |
| IRF-36 | 100 | $\pm 5\%$, $\pm 10\%$ | 30 | 2.52 | 4.8 | 1.80 | 275 |
| IRF-36 | 120 | $\pm 5\%$, $\pm 10\%$ | 70 | 0.796 | 3.8 | 3.7 | 185 |
| IRF-36 | 150 | $\pm 5\%$, $\pm 10\%$ | 70 | 0.796 | 3.5 | 4.2 | 175 |
| IRF-36 | 180 | $\pm 5\%$, $\pm 10\%$ | 70 | 0.796 | 3.3 | 4.6 | 165 |
| IRF-36 | 220 | $\pm 5\%$, $\pm 10\%$ | 70 | 0.796 | 3.0 | 5.1 | 155 |
| IRF-36 | 270 | $\pm 5\%$, $\pm 10\%$ | 65 | 0.796 | 2.8 | 5.8 | 146 |
| IRF-36 | 330 | $\pm 5\%$, $\pm 10\%$ | 65 | 0.796 | 2.6 | 6.4 | 137 |
| IRF-36 | 390 | $\pm 5\%$, $\pm 10\%$ | 65 | 0.796 | 2.4 | 7.0 | 133 |
| IRF-36 | 470 | $\pm 5\%$, $\pm 10\%$ | 60 | 0.796 | 2.25 | 7.7 | 126 |
| IRF-36 | 560 | $\pm 5\%$, $\pm 10\%$ | 60 | 0.796 | 2.10 | 8.5 | 120 |
| IRF-36 | 680 | $\pm 5\%$, $\pm 10\%$ | 55 | 0.796 | 1.95 | 9.4 | 113 |
| IRF-36 | 820 | $\pm 5\%$, $\pm 10\%$ | 55 | 0.796 | 1.85 | 12.0 | 100 |
| IRF-36 | 1000 | $\pm 5\%$, $\pm 10\%$ | 50 | 0.796 | 1.40 | 17.4 | 100 |

ORDERING INFORMATION

| | | | | |
|---------------|------------------------------|------------------------------|--------------|--------------------------------|
| IRF-36 | 4.7 μH | $\pm 10\%$ | ER | e3 |
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

GLOBAL PART NUMBER

| | | | | | | | | | | |
|----------|----------|----------|----------|----------|--------------|----------|------------------|----------|----------|----------------------|
| I | R | F | 3 | 6 | E | R | 4 | R | 7 | K |
| MODEL | | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | INDUCTANCE TOLERANCE |



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