

## Inductors, Epoxy Conformal Coated, Axial Leaded



### ELECTRICAL SPECIFICATIONS

**Inductance Range:** 1000  $\mu\text{H}$  to 39 000  $\mu\text{H}$

**Inductance Tolerance:**  $\pm 10\%$  standard,  $\pm 5\%$  optional

**Operating Temperature Range:**  $-20\text{ }^\circ\text{C}$  to  $+105\text{ }^\circ\text{C}$

**Dielectric Strength:** 250  $V_{\text{RMS}}$

### MECHANICAL SPECIFICATIONS

**Terminal Strength:** pull = 5 pounds, twist =  $360\text{ }^\circ\text{C} \times 3$

**Protection:** epoxy uniform roll coated

**Leads:** tinned copper

### ENVIRONMENTAL SPECIFICATIONS

**Maximum Temperature Rise:**  $+20\text{ }^\circ\text{C}$

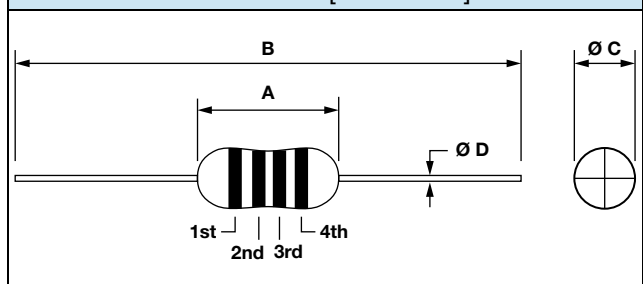
### FEATURES

- 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](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

### DIMENSIONS in inches [millimeters]



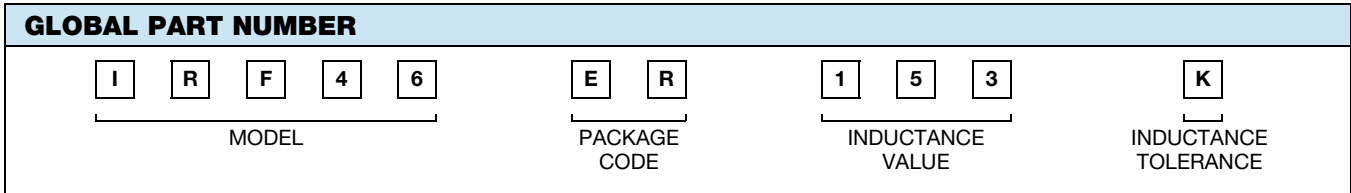
| MODEL  | A (MAX.)        | B                                     | C (MAX.)       | D                                      |
|--------|-----------------|---------------------------------------|----------------|--|
| IRF-46 | 0.394<br>[10.0] | 2.480 $\pm$ 0.039<br>[63.0 $\pm$ 1.0] | 0.205<br>[5.2] | 0.026 $\pm$ 0.002<br>[0.65 $\pm$ 0.05] |

### STANDARD ELECTRICAL SPECIFICATIONS

| MODEL  | IND. ( $\mu\text{H}$ ) | TOL. (%)        | Q MIN. | TEST FREQUENCY (MHz) | DCR MAX. ( $\Omega$ ) | SRF MIN. (MHz) | RATED DC CURRENT (mA) |
|--------|------------------------|-----------------|--------|----------------------|-----------------------|----------------|-----------------------|
| IRF-46 | 1000                   | $\pm 5, \pm 10$ | 80     | 2.52                 | 8                     | 1.7            | 200                   |
| IRF-46 | 1200                   | $\pm 5, \pm 10$ | 80     | 2.52                 | 9                     | 1.5            | 180                   |
| IRF-46 | 1500                   | $\pm 5, \pm 10$ | 80     | 2.52                 | 10                    | 1.4            | 160                   |
| IRF-46 | 1800                   | $\pm 5, \pm 10$ | 80     | 2.52                 | 11                    | 1.3            | 150                   |
| IRF-46 | 2200                   | $\pm 5, \pm 10$ | 80     | 2.52                 | 14                    | 1.2            | 120                   |
| IRF-46 | 2700                   | $\pm 5, \pm 10$ | 80     | 2.52                 | 18                    | 1.0            | 110                   |
| IRF-46 | 3300                   | $\pm 5, \pm 10$ | 80     | 2.52                 | 22                    | 0.9            | 105                   |
| IRF-46 | 3900                   | $\pm 5, \pm 10$ | 80     | 2.52                 | 26                    | 0.8            | 100                   |
| IRF-46 | 4700                   | $\pm 5, \pm 10$ | 80     | 2.52                 | 30                    | 0.7            | 95                    |
| IRF-46 | 5600                   | $\pm 5, \pm 10$ | 60     | 2.52                 | 34                    | 0.7            | 80                    |
| IRF-46 | 6800                   | $\pm 5, \pm 10$ | 60     | 2.52                 | 48                    | 0.5            | 75                    |
| IRF-46 | 8200                   | $\pm 5, \pm 10$ | 60     | 2.52                 | 62                    | 0.5            | 70                    |
| IRF-46 | 10 000                 | $\pm 5, \pm 10$ | 60     | 0.0796               | 74                    | 0.5            | 65                    |
| IRF-46 | 12 000                 | $\pm 5, \pm 10$ | 50     | 0.0796               | 88                    | 0.4            | 60                    |
| IRF-46 | 15 000                 | $\pm 5, \pm 10$ | 50     | 0.0796               | 102                   | 0.4            | 55                    |
| IRF-46 | 18 000                 | $\pm 5, \pm 10$ | 40     | 0.0796               | 150                   | 0.3            | 50                    |
| IRF-46 | 22 000                 | $\pm 5, \pm 10$ | 40     | 0.0796               | 180                   | 0.3            | 45                    |
| IRF-46 | 27 000                 | $\pm 5, \pm 10$ | 40     | 0.0796               | 210                   | 0.3            | 40                    |
| IRF-46 | 30 000                 | $\pm 5, \pm 10$ | 40     | 0.0796               | 240                   | 0.3            | 35                    |
| IRF-46 | 33 000                 | $\pm 5, \pm 10$ | 40     | 0.0796               | 250                   | 0.2            | 30                    |
| IRF-46 | 39 000                 | $\pm 5, \pm 10$ | 40     | 0.0796               | 270                   | 0.2            | 25                    |



| ORDERING INFORMATION |                  |                      |              |                                |
|----------------------|------------------|----------------------|--------------|--------------------------------|
| IRF-46               | 15 000 $\mu$ H   | $\pm 10 \%$          | ER           | e3                             |
| MODEL                | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |





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