

## Inductors, Epoxy Conformal Coated, Axial Leaded



### ELECTRICAL SPECIFICATIONS

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

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

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

**Dielectric Strength:** 250 V<sub>RMS</sub>

### 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

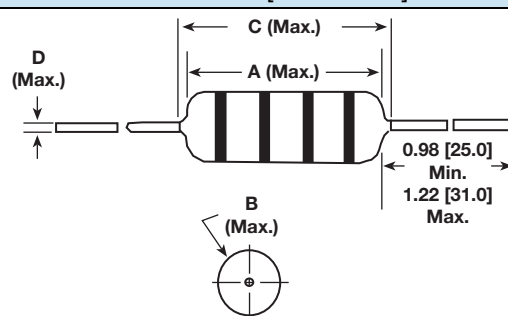
### FEATURES

- 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
- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition



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

### DIMENSIONS in inches [millimeters]



| MODEL  | A (MAX.)       | B (MAX.)       | C (MAX.)        | D (MAX.)        |
|--------|----------------|----------------|-----------------|-----------------|
| IRF-46 | 0.236<br>[6.0] | 0.197<br>[5.0] | 0.551<br>[14.0] | 0.026<br>[0.65] |

### STANDARD ELECTRICAL SPECIFICATIONS

| MODEL  | IND.<br>( $\mu$ H) | TOL.<br>(%)     | Q<br>MIN. | TEST FREQUENCY<br>(MHz) | SRF MIN.<br>(MHz) | DCR MAX.<br>( $\Omega$ ) | RATED DC CURRENT<br>(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        | 2.52                    | 74                | 0.5                      | 65                       |
| IRF-46 | 12 000             | $\pm 5, \pm 10$ | 50        | 2.52                    | 88                | 0.4                      | 60                       |
| IRF-46 | 15 000             | $\pm 5, \pm 10$ | 50        | 2.52                    | 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 |

## GLOBAL PART NUMBER

|       |   |   |   |   |              |   |                  |   |   |                      |
|-------|---|---|---|---|--------------|---|------------------|---|---|----------------------|
| I     | R | F | 4 | 6 | E            | R | 1                | 5 | 3 | K                    |
| MODEL |   |   |   |   | PACKAGE CODE |   | INDUCTANCE VALUE |   |   | INDUCTANCE TOLERANCE |



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