

## Inductors

Epoxy Conformal Coated, Axial Leaded



### 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


**RoHS**  
COMPLIANT

### ELECTRICAL SPECIFICATIONS

Inductance Range: 1000  $\mu$ H to 39000  $\mu$ H

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

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

Dielectric Strength: 250 VRMS

### MECHANICAL SPECIFICATIONS

Terminal Strength: Pull = 5 pounds, Twist = 360 $^{\circ}$  x 3

Protection: Epoxy uniform roll coated

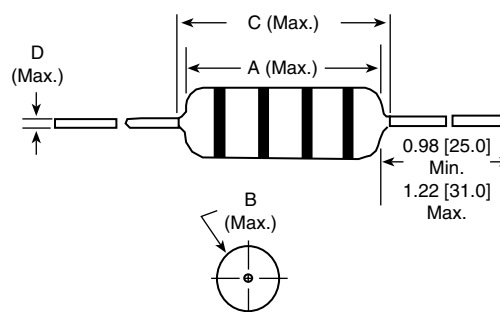
Leads: Tinned copper

### ENVIRONMENTAL SPECIFICATIONS

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

| STANDARD ELECTRICAL SPECIFICATIONS |                     |           |                        |                       |                      |                             |
|------------------------------------|---------------------|-----------|------------------------|-----------------------|----------------------|-----------------------------|
| IND.<br>AT<br>1 kHz<br>( $\mu$ H)  | TOL.                | Q<br>MIN. | TEST<br>FREQ.<br>(MHz) | DCR<br>MAX.<br>(Ohms) | SRF<br>MIN.<br>(MHz) | RATED DC<br>CURRENT<br>(mA) |
| 1000                               | $\pm 5\%, \pm 10\%$ | 80        | 2.52                   | 8                     | 1.7                  | 200                         |
| 1200                               | $\pm 5\%, \pm 10\%$ | 80        | 2.52                   | 9                     | 1.5                  | 180                         |
| 1500                               | $\pm 5\%, \pm 10\%$ | 80        | 2.52                   | 10                    | 1.4                  | 160                         |
| 1800                               | $\pm 5\%, \pm 10\%$ | 80        | 2.52                   | 11                    | 1.3                  | 150                         |
| 2200                               | $\pm 5\%, \pm 10\%$ | 80        | 2.52                   | 14                    | 1.2                  | 120                         |
| 2700                               | $\pm 5\%, \pm 10\%$ | 80        | 2.52                   | 18                    | 1.0                  | 110                         |
| 3300                               | $\pm 5\%, \pm 10\%$ | 80        | 2.52                   | 22                    | 0.9                  | 105                         |
| 3900                               | $\pm 5\%, \pm 10\%$ | 80        | 2.52                   | 26                    | 0.8                  | 100                         |
| 4700                               | $\pm 5\%, \pm 10\%$ | 80        | 2.52                   | 30                    | 0.7                  | 95                          |
| 5600                               | $\pm 5\%, \pm 10\%$ | 60        | 2.52                   | 34                    | 0.7                  | 80                          |
| 6800                               | $\pm 5\%, \pm 10\%$ | 60        | 2.52                   | 48                    | 0.5                  | 75                          |
| 8200                               | $\pm 5\%, \pm 10\%$ | 60        | 2.52                   | 62                    | 0.5                  | 70                          |
| 10000                              | $\pm 5\%, \pm 10\%$ | 60        | 2.52                   | 74                    | 0.5                  | 65                          |
| 12000                              | $\pm 5\%, \pm 10\%$ | 50        | 2.52                   | 88                    | 0.4                  | 60                          |
| 15000                              | $\pm 5\%, \pm 10\%$ | 50        | 2.52                   | 102                   | 0.4                  | 55                          |
| 18000                              | $\pm 5\%, \pm 10\%$ | 40        | 0.0796                 | 150                   | 0.3                  | 50                          |
| 22000                              | $\pm 5\%, \pm 10\%$ | 40        | 0.0796                 | 180                   | 0.3                  | 45                          |
| 27000                              | $\pm 5\%, \pm 10\%$ | 40        | 0.0796                 | 210                   | 0.3                  | 40                          |
| 30000                              | $\pm 5\%, \pm 10\%$ | 40        | 0.0796                 | 240                   | 0.3                  | 35                          |
| 33000                              | $\pm 5\%, \pm 10\%$ | 40        | 0.0796                 | 250                   | 0.2                  | 30                          |
| 39000                              | $\pm 5\%, \pm 10\%$ | 40        | 0.0796                 | 270                   | 0.2                  | 25                          |

### DIMENSIONS in inches [millimeters]



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

### DESCRIPTION

|               |                                |                              |              |                               |
|---------------|--------------------------------|------------------------------|--------------|-------------------------------|
| <b>IRF-46</b> | <b>15000 <math>\mu</math>H</b> | <b><math>\pm 10\%</math></b> | <b>ER</b>    | <b>e3</b>                     |
| MODEL         | INDUCTANCE VALUE               | INDUCTANCE TOLERANCE         | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

### GLOBAL PART NUMBER INFORMATION

|                |            |              |                  |          |
|----------------|------------|--------------|------------------|----------|
| <b>I R F</b>   | <b>4 6</b> | <b>E R</b>   | <b>1 5 3</b>     | <b>K</b> |
| PRODUCT FAMILY | SIZE       | PACKAGE CODE | INDUCTANCE VALUE | TOL.     |



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