

# 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

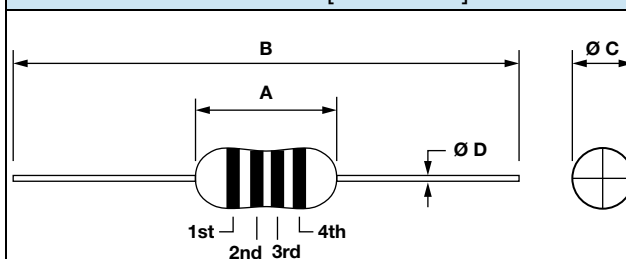
## FEATURES

- 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
- 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 [10.0]	2.480 $\pm$ 0.039 [63.0 $\pm$ 1.0]	0.205 [5.2]	0.026 $\pm$ 0.002 [0.65 $\pm$ 0.05]

## STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. ( $\mu$ 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**

<b>IRF-46</b>	<b>15 000 <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**

<table><tr><td>I</td><td>R</td><td>F</td><td>4</td><td>6</td></tr><tr><td colspan="5">MODEL</td></tr></table>	I	R	F	4	6	MODEL					<table><tr><td>E</td><td>R</td></tr><tr><td colspan="2">PACKAGE CODE</td></tr></table>	E	R	PACKAGE CODE		<table><tr><td>1</td><td>5</td><td>3</td></tr><tr><td colspan="3">INDUCTANCE VALUE</td></tr></table>	1	5	3	INDUCTANCE VALUE			<table><tr><td>K</td></tr><tr><td>INDUCTANCE TOLERANCE</td></tr></table>	K	INDUCTANCE TOLERANCE
I	R	F	4	6																					
MODEL																									
E	R																								
PACKAGE CODE																									
1	5	3																							
INDUCTANCE VALUE																									
K																									
INDUCTANCE TOLERANCE																									



## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.