



**THE DATASHEET OF  
IRF36ER821K**



## Inductors, Epoxy Conformal Coated, Axial Leaded



### ELECTRICAL SPECIFICATIONS

**Inductance Range:** 0.27  $\mu$ H to 1000  $\mu$ H

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

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

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

### MECHANICAL SPECIFICATIONS

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

**Protection:** Epoxy uniform roll coated

**Leads:** Tinned copper

### ENVIRONMENTAL SPECIFICATIONS

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

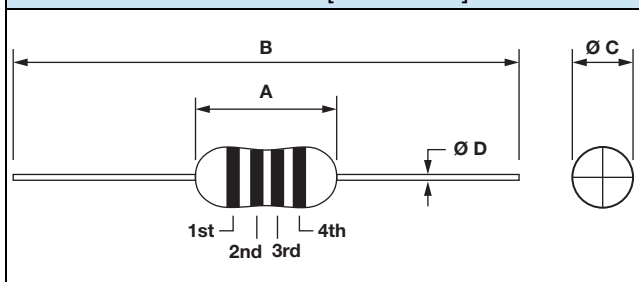
### FEATURES

- High performance ferrite core is used in this epoxy conformally coated choke which allows for inductance values to 1000  $\mu$ 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](http://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. ( $\mu$ H)	TOL. (%)	Q MIN.	TEST FREQUENCY (MHz)	SRF MIN. (MHz)	DCR MAX. ( $\Omega$ )	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



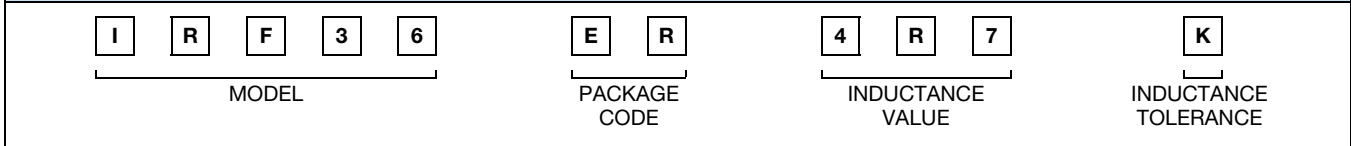
**STANDARD ELECTRICAL SPECIFICATIONS**

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

**ORDERING INFORMATION**

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

**GLOBAL PART NUMBER**





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