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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Inductors

Epoxy Conformal Coated  
Uniform Roll Coated



### ELECTRICAL SPECIFICATIONS

**Inductance Tolerance:**  $\pm 5\%$ ,  $\pm 10\%$ ,  $\pm 20\%$   
Other tolerances available on request

**Insulation Resistance:** 1000 Megohm minimum per MIL-STD-202, Method 302, Test Condition B

**Operating Temperature:**  $-55\text{ }^{\circ}\text{C}$  to  $+105\text{ }^{\circ}\text{C}$

### MATERIAL SPECIFICATIONS

**Coating:** Epoxy-uniform roll coated

**Lead:** Tinned copper

**Core:** Ferrite

### MECHANICAL SPECIFICATIONS

**Terminal Strength:** 5 pounds pull per MIL-STD-202, Method 211, Test Condition A

**Weight:** IRF-1 = 0.3 gram maximum  
IRF-3 = 0.6 gram maximum

### TEST EQUIPMENT\*

- H/P 4342A Q-Meter
- Measurements Corporation Megacycle Meter, Model 59
- Whearstone bridge

\* Test procedures per MIL-PRF-15305

### FEATURES

- Flame-retardant coating and color band identification
- Uniform coating is excellent for automatic insertion
- Available in bulk, ammo and reel pack per EIA RS/296
- Superior electrical specifications high Q and self resonant frequency, low DC resistance, high rated DC current



**RoHS**  
COMPLIANT

### DIMENSIONS in inches [millimeters]

MODEL	A (Max.)	B (Max.)	C (Max.)	D
IRF-1	0.260 [6.60]	0.120 [3.05]	0.330 [8.38]	0.0200 $\pm$ 0.0015 [0.508 $\pm$ 0.038]
IRF-3	0.385 [9.78]	0.165 [4.19]	0.410 [10.41]	0.025 $\pm$ 0.002 [0.635 $\pm$ 0.051]

### ENVIRONMENTAL PERFORMANCE

TEST	CONDITIONS	SPECIFICATIONS
Flammability	-	MIL-STD-202, Method 111
Overload	-	MIL-PRF-15305
Resistance to Soldering Heat	Test Condition A	MIL-STD-202, Method 210
Resistance to Solvents	-	MIL-STD-202, Method 215

### STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. ( $\mu\text{H}$ )	TOL.	Q MIN.	TEST FREQ. L & Q (MHz)	SELF-RESONANT* FREQ MIN. (MHz)	DCR MAXIMUM (Ohms)	RATED DC** CURRENT (mA)
IRF-1	0.10	$\pm 20\%$	40	25.0	400.0	0.06	1350
IRF-1	0.12	$\pm 20\%$	40	25.0	400.0	0.06	1270
IRF-1	0.15	$\pm 20\%$	40	25.0	400.0	0.07	1200
IRF-1	0.18	$\pm 20\%$	40	25.0	400.0	0.075	1155
IRF-1	0.22	$\pm 20\%$	40	25.0	380.0	0.075	1150
IRF-1	0.27	$\pm 20\%$	40	25.0	360.0	0.08	1110
IRF-1	0.33	$\pm 20\%$	40	25.0	350.0	0.08	1110
IRF-1	0.39	$\pm 20\%$	40	25.0	320.0	0.09	1000
IRF-1	0.47	$\pm 20\%$	40	25.0	300.0	0.10	1000
IRF-1	0.56	$\pm 20\%$	40	25.0	280.0	0.11	950
IRF-1	0.68	$\pm 20\%$	40	25.0	250.0	0.12	900
IRF-1	0.82	$\pm 20\%$	40	25.0	200.0	0.12	900
IRF-1	1.0	$\pm 10\%$	50	25.0	180.0	0.15	815
IRF-1	1.2	$\pm 10\%$	50	7.9	165.0	0.18	740
IRF-1	1.5	$\pm 10\%$	50	7.9	150.0	0.20	700
IRF-1	1.8	$\pm 10\%$	50	7.9	125.0	0.23	655
IRF-1	2.2	$\pm 10\%$	50	7.9	115.0	0.25	630
IRF-1	2.7	$\pm 10\%$	50	7.9	100.0	0.28	595
IRF-1	3.3	$\pm 10\%$	50	7.9	90.0	0.30	575
IRF-1	3.9	$\pm 10\%$	50	7.9	80.0	0.32	555
IRF-1	4.7	$\pm 10\%$	50	7.9	75.0	0.35	530
IRF-1	5.6	$\pm 10\%$	50	7.9	65.0	0.40	500
IRF-1	6.8	$\pm 10\%$	50	7.9	60.0	0.45	470
IRF-1	8.2	$\pm 10\%$	50	7.9	55.0	0.55	425
IRF-1	10.0	$\pm 10\%$	50	7.9	50.0	0.72	370
IRF-1	12.0	$\pm 10\%$	50	2.5	40.0	0.80	350
IRF-1	15.0	$\pm 10\%$	50	2.5	35.0	0.88	335
IRF-1	18.0	$\pm 10\%$	50	2.5	30.0	1.0	315
IRF-1	22.0	$\pm 10\%$	50	2.5	25.0	1.2	285
IRF-1	27.0	$\pm 10\%$	50	2.5	20.0	1.35	270

\* Measured with full length lead. \*\* Rated DC Current based on maximum temperature rise of  $15\text{ }^{\circ}\text{C}$  at  $+90\text{ }^{\circ}\text{C}$  ambient.



STANDARD ELECTRICAL SPECIFICATIONS							
MODEL	IND. (µH)	TOL.	Q MIN.	TEST FREQ. L & Q (MHz)	SELF-RESONANT* FREQ MIN. (MHz)	DCR MAXIMUM (Ohms)	RATED DC** CURRENT (mA)
IRF-1	33.0	± 10 %	50	2.5	24.0	1.5	255
IRF-1	39.0	± 10 %	50	2.5	22.0	1.7	240
IRF-1	47.0	± 10 %	60	2.5	20.0	2.3	205
IRF-1	56.0	± 10 %	60	2.5	18.0	2.6	195
IRF-1	68.0	± 10 %	60	2.5	15.0	2.9	185
IRF-1	82.0	± 10 %	60	2.5	14.0	3.2	175
IRF-1	100.0	± 10 %	60	2.5	13.0	3.5	165
IRF-1	120.0	± 10 %	60	0.79	5.40	3.8	160
IRF-1	150.0	± 10 %	60	0.79	4.75	4.4	150
IRF-1	180.0	± 10 %	60	0.79	4.35	5.0	140
IRF-1	220.0	± 10 %	60	0.79	4.0	5.7	130
IRF-1	270.0	± 10 %	60	0.79	3.70	6.5	120
IRF-1	330.0	± 10 %	60	0.79	3.40	9.5	100
IRF-1	390.0	± 10 %	60	0.79	2.80	10.5	95
IRF-1	470.0	± 10 %	60	0.79	2.55	11.6	90
IRF-1	560.0	± 10 %	60	0.79	2.35	13.0	85
IRF-1	680.0	± 10 %	60	0.79	2.0	18.0	75
IRF-1	820.0	± 10 %	60	0.79	1.85	23.0	65
IRF-1	1000.0	± 10 %	60	0.79	1.40	26.0	60
IRF-3	0.22	± 20 %	55	25.0	380.0	0.10	1400
IRF-3	0.27	± 20 %	55	25.0	340.0	0.11	1320
IRF-3	0.33	± 20 %	55	25.0	300.0	0.12	1280
IRF-3	0.39	± 20 %	55	25.0	280.0	0.13	1200
IRF-3	0.47	± 20 %	55	25.0	250.0	0.14	1150
IRF-3	0.56	± 20 %	55	25.0	230.0	0.15	1100
IRF-3	0.68	± 20 %	55	25.0	210.0	0.16	1030
IRF-3	0.82	± 20 %	55	25.0	172.0	0.17	980
IRF-3	1.0	± 10 %	55	25.0	157.0	0.19	920
IRF-3	1.2	± 10 %	50	7.9	144.0	0.21	880
IRF-3	1.5	± 10 %	50	7.9	131.0	0.23	830
IRF-3	1.8	± 10 %	55	7.9	121.0	0.25	790
IRF-3	2.2	± 10 %	55	7.9	110.0	0.28	750
IRF-3	2.7	± 10 %	60	7.9	100.0	0.30	720
IRF-3	3.3	± 10 %	65	7.9	94.0	0.34	670
IRF-3	3.9	± 10 %	65	7.9	86.0	0.37	640
IRF-3	4.7	± 10 %	70	7.9	80.0	0.39	620
IRF-3	5.6	± 10 %	70	7.9	74.0	0.43	590
IRF-3	6.8	± 10 %	75	7.9	68.0	0.48	550
IRF-3	8.2	± 10 %	80	7.9	53.0	0.52	530
IRF-3	10.0	± 10 %	85	7.9	45.0	0.58	500
IRF-3	12.0	± 10 %	75	2.5	42.0	0.63	480
IRF-3	15.0	± 10 %	70	2.5	40.0	0.72	460
IRF-3	18.0	± 10 %	65	2.5	34.0	0.77	430
IRF-3	22.0	± 10 %	60	2.5	30.0	0.84	410
IRF-3	27.0	± 10 %	55	2.5	25.0	0.94	390
IRF-3	33.0	± 10 %	55	2.5	19.0	1.03	370
IRF-3	39.0	± 10 %	50	2.5	14.5	1.12	350
IRF-3	47.0	± 10 %	45	2.5	13.0	1.22	340
IRF-3	56.0	± 10 %	40	2.5	12.0	1.34	320
IRF-3	68.0	± 10 %	40	2.5	11.0	1.47	305
IRF-3	82.0	± 10 %	35	2.5	10.3	1.62	290
IRF-3	100.0	± 10 %	30	2.5	9.5	1.8	275
IRF-3	120.0	± 10 %	70	0.79	3.8	3.7	185
IRF-3	150.0	± 10 %	70	0.79	3.5	4.2	175
IRF-3	180.0	± 10 %	70	0.79	3.3	4.6	165
IRF-3	220.0	± 10 %	70	0.79	3.0	5.1	155
IRF-3	270.0	± 10 %	70	0.79	2.8	5.8	145
IRF-3	330.0	± 10 %	70	0.79	2.6	6.4	137
IRF-3	390.0	± 10 %	65	0.79	2.4	7.0	133
IRF-3	470.0	± 10 %	65	0.79	2.25	7.7	126
IRF-3	560.0	± 10 %	65	0.79	2.1	8.5	120
IRF-3	680.0	± 10 %	65	0.79	1.95	9.4	113
IRF-3	820.0	± 10 %	65	0.79	1.85	10.5	105
IRF-3	1000.0	± 10 %	65	0.79	1.4	14.0	100

\* Measured with full length lead. \*\* Rated DC Current based on maximum temperature rise of 15 °C at + 90 °C ambient.

ORDERING INFORMATION				
IRF-1	10 µH	± 10 %	ER	e2
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER INFORMATION			
I R F 0 1	E R	1 0 0	K
MODEL	PACKING CODE	INDUCTANCE VALUE	TOL.



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