Inductors, Epoxy Conformal Coated, Uniform Roll Coated, Axial Leaded

ELECTRICAL SPECIFICATIONS

Inductance Tolerance: ± 5 %, ± 10 %, ± 20 %
Other tolerances available on request

Insulation Resistance: 1000 MΩ minimum per MIL-STD-202, method 302, test condition B

Operating Temperature: - 55 °C to + 105 °C

MATERIAL SPECIFICATIONS

Coating: Epoxy-uniform roll coated

Lead: Tinned copper

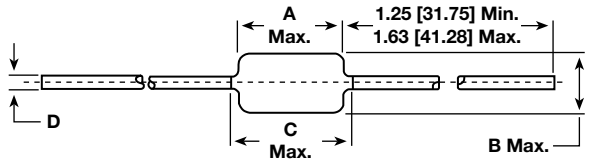
Core: Ferrite

MECHANICAL SPECIFICATIONS

Terminal Strenght: 5 pounds pull per MIL-STD-202, method 211, test condition A

Weight: IRF-1 = 0.3 g maximum
IRF-3 = 0.6 g maximum

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 ± 0.0015 [0.508 ± 0.038]
IRF-3	0.385 [9.78]	0.170 [4.32]	0.410 [10.41]	0.025 ± 0.002 [0.635 ± 0.051]

FEATURES

- Flame-retardant coating
- 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
- Compliant to RoHS Directive 2002/95/EC

RoHS COMPLIANT

TEST EQUIPMENT (1)

- H/P 4342A Q-meter
- Measurements corporation megacycle meter, model 59
- Whearstone bridge

Note

(1) Test procedures per MIL-PRF-15305

ENVIRONMENTAL PERFORMANCE

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

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. (µH)	TOL. (%)	Q MIN.	TEST FREQUENCY L AND Q (MHz)	SRF MIN. (MHz) (1)	DCR MAX. (Ω)	RATED DC CURRENT (mA) (2)
IRF-1	0.10	± 20	40	25.0	400.0	0.06	1350
IRF-1	0.12	± 20	40	25.0	400.0	0.06	1270
IRF-1	0.15	± 20	40	25.0	400.0	0.07	1200
IRF-1	0.18	± 20	40	25.0	400.0	0.075	1155
IRF-1	0.22	± 20	40	25.0	380.0	0.075	1150
IRF-1	0.27	± 20	40	25.0	360.0	0.08	1110
IRF-1	0.33	± 20	40	25.0	350.0	0.08	1110
IRF-1	0.39	± 20	40	25.0	320.0	0.09	1000
IRF-1	0.47	± 20	40	25.0	300.0	0.10	1000
IRF-1	0.56	± 20	40	25.0	280.0	0.11	950
IRF-1	0.68	± 20	40	25.0	250.0	0.12	900
IRF-1	0.82	± 20	40	25.0	200.0	0.12	900
IRF-1	1.0	± 10	50	25.0	180.0	0.15	815
IRF-1	1.2	± 10	50	7.9	165.0	0.18	740
IRF-1	1.5	± 10	50	7.9	150.0	0.20	700

Notes

(1) Measured with full length lead

(2) Rated DC current based on maximum temperature rise of 15 °C at + 90 °C ambient

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. (µH)	TOL. (%)	Q MIN.	TEST FREQUENCY L AND Q (MHz)	SRF MIN. (MHz) (1)	DCR MAX. (Ω)	RATED DC CURRENT (mA) (2)
IRF-1	1.8	± 10	50	7.9	125.0	0.23	655
IRF-1	2.2	± 10	50	7.9	115.0	0.25	630
IRF-1	2.7	± 10	50	7.9	100.0	0.28	595
IRF-1	3.3	± 10	50	7.9	90.0	0.30	575
IRF-1	3.9	± 10	50	7.9	80.0	0.32	555
IRF-1	4.7	± 10	50	7.9	75.0	0.35	530
IRF-1	5.6	± 10	50	7.9	65.0	0.40	500
IRF-1	6.8	± 10	50	7.9	60.0	0.45	470
IRF-1	8.2	± 10	50	7.9	55.0	0.55	425
IRF-1	10.0	± 10	50	7.9	50.0	0.72	370
IRF-1	12.0	± 10	50	2.5	40.0	0.80	350
IRF-1	15.0	± 10	50	2.5	35.0	0.88	335
IRF-1	18.0	± 10	50	2.5	30.0	1.0	315
IRF-1	22.0	± 10	50	2.5	25.0	1.2	285
IRF-1	27.0	± 10	50	2.5	20.0	1.35	270
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

Notes

(1) Measured with full length lead

(2) Rated DC current based on maximum temperature rise of 15 °C at + 90 °C ambient

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. (µH)	TOL. (%)	Q MIN.	TEST FREQUENCY L AND Q (MHz)	SRF MIN. (MHz) (1)	DCR MAX. (Ω)	RATED DC CURRENT (mA) (2)
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

Notes

(1) Measured with full length lead

(2) 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

I	R	F	0	1	E	R	1	0	0	K
MODEL					PACKAGE CODE		INDUCTANCE VALUE			INDUCTANCE TOLERANCE

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