Inductors

Epoxy Conformal Coated
Uniform Roll Coated

FEATURES

- Flame-retardant coating
- Color band identification
- Excellent environmental characteristics
- Uniform coating is excellent for automatic insertion
- Comparable in quality to molded chokes at a lower price
- Epoxy coating is more durable than lacquer coated models, yet is priced comparably

Pb-free
RoHS COMPLIANT

ELECTRICAL SPECIFICATIONS

Inductance Tolerance: ± 1 %, ± 3 %, ± 5 %, ± 10 %, ± 20 %
Other tolerances available on request

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

Dielectric Strength: 1000 VAC per MIL-STD-202, Method 301

MATERIAL SPECIFICATIONS

Coating: Epoxy-uniform roll coated

Lead: Tinned copper

MECHANICAL SPECIFICATIONS

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

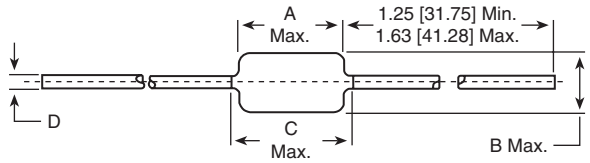
Weight: IR-2 = 0.30 grams maximum
IR-4 = 0.65 gram maximum

TEST EQUIPMENT*

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

* Test procedures per MIL-PRF-15305

DIMENSIONS in inches [millimeters]



MODEL	A (Max.)	B (Max.)	C (Max.)	D
IR-2	0.260 [6.60]	0.120 [3.05]	0.330 [8.38]	0.0200 ± 0.0015 [0.508 ± 0.038]
IR-4	0.385 [9.78]	0.180 [4.57]	0.440 [11.18]	0.025 ± 0.002 [0.635 ± 0.051]

ENVIRONMENTAL PERFORMANCE

TEST	CONDITIONS	SPECIFICATIONS
Barometric Pressure	Test Condition C	MIL-STD-202, Method 105
Thermal Shock	Test Condition A-1	MIL-STD-202, Method 107
Flammability	-	MIL-STD-202, Method 111
Overload	-	MIL-PRF-15305
Low Temperature	-	MIL-PRF-15305
Resistance to Soldering Heat	Test Condition A	MIL-STD-202, Method 210
Resistance to Solvents	-	MIL-STD-202, Method 215

MAXIMUM TEMPERATURE RISE

		OPERATING TEMPERATURE RANGE
IR-2		
	0.1 µH to 1.0 µH = + 35 °C at + 90 °C ambient	- 55 °C to 125 °C
	1.2 µH to 27 µH = + 15 °C at + 90 °C ambient	- 55 °C to 105 °C
	33 µH to 1000 µH = + 15 °C at + 90 °C ambient	- 55 °C to 105 °C
IR-4		
	0.15 µH to 4.7 µH = + 35 °C at + 90 °C ambient	- 55 °C to 125 °C
	5.6 µH to 33 µH = + 15 °C at + 90 °C ambient	- 55 °C to 105 °C
	36 µH to 240 µH = + 15 °C at + 90 °C ambient	- 55 °C to 105 °C
	270 µH to 1800 µH = + 35 °C at + 90 °C ambient	- 55 °C to 125 °C

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. (µH)	TOL.	Q MIN.	TEST FREQ. L & Q (MHz)	SELF-RESONANT* FREQ MIN. (MHz)	DCR MAX. (Ohms)	RATED DC** CURRENT (mA)	
IR-2	0.10	± 10 %	40	25.0	680.0	0.08	1350	PHENOLIC CORE
IR-2	0.12	± 10 %	40	25.0	640.0	0.09	1270	
IR-2	0.15	± 10 %	38	25.0	600.0	0.10	1200	
IR-2	0.18	± 10 %	35	25.0	550.0	0.12	1105	
IR-2	0.22	± 10 %	33	25.0	510.0	0.14	1025	
IR-2	0.27	± 10 %	33	25.0	430.0	0.16	960	
IR-2	0.33	± 10 %	30	25.0	410.0	0.22	815	
IR-2	0.39	± 10 %	30	25.0	365.0	0.30	700	
IR-2	0.47	± 10 %	30	25.0	330.0	0.35	650	
IR-2	0.56	± 10 %	30	25.0	300.0	0.50	545	
IR-2	0.68	± 10 %	28	25.0	275.0	0.60	495	
IR-2	0.82	± 10 %	28	25.0	250.0	0.85	415	
IR-2	1.0	± 10 %	25	25.0	230.0	1.00	385	
IR-2	1.2	± 10 %	25	7.9	150.0	0.18	590	IRON CORE
IR-2	1.5	± 10 %	28	7.9	140.0	0.22	535	
IR-2	1.8	± 10 %	30	7.9	125.0	0.30	455	
IR-2	2.2	± 10 %	30	7.9	115.0	0.40	395	
IR-2	2.7	± 10 %	37	7.9	100.0	0.55	355	
IR-2	3.3	± 10 %	45	7.9	90.0	0.85	270	
IR-2	3.9	± 10 %	45	7.9	80.0	1.0	250	
IR-2	4.7	± 10 %	45	7.9	75.0	1.2	230	
IR-2	5.6	± 10 %	50	7.9	65.0	1.8	185	
IR-2	6.8	± 10 %	50	7.9	60.0	2.0	175	
IR-2	8.2	± 10 %	55	7.9	55.0	2.7	155	
IR-2	10.0	± 10 %	55	7.9	50.0	3.7	130	
IR-2	12.0	± 10 %	45	2.5	40.0	2.7	155	
IR-2	15.0	± 10 %	40	2.5	35.0	2.8	150	
IR-2	18.0	± 10 %	50	2.5	30.0	3.1	145	
IR-2	22.0	± 10 %	50	2.5	25.0	3.3	140	
IR-2	27.0	± 10 %	50	2.5	20.0	3.5	135	
IR-2	33.0	± 10 %	45	2.5	24.0	3.4	130	FERRITE CORE
IR-2	39.0	± 10 %	45	2.5	22.0	3.6	125	
IR-2	47.0	± 10 %	45	2.5	20.0	4.5	110	
IR-2	56.0	± 10 %	45	2.5	18.0	5.7	100	
IR-2	68.0	± 10 %	50	2.5	15.0	6.7	92	
IR-2	82.0	± 10 %	50	2.5	14.0	7.3	88	
IR-2	100.0	± 10 %	50	2.5	13.0	8.0	84	
IR-2	120.0	± 10 %	30	0.79	12.0	13.0	66	
IR-2	150.0	± 10 %	30	0.79	11.0	15.0	61	
IR-2	180.0	± 10 %	30	0.79	10.0	17.0	57	
IR-2	220.0	± 10 %	30	0.79	9.0	21.0	52	
IR-2	270.0	± 10 %	30	0.79	8.0	25.0	47	
IR-2	330.0	± 10 %	30	0.79	7.0	28.0	45	
IR-2	390.0	± 10 %	30	0.79	6.5	35.0	40	
IR-2	470.0	± 10 %	30	0.79	6.0	42.0	36	
IR-2	560.0	± 10 %	30	0.79	5.0	46.0	35	
IR-2	680.0	± 10 %	30	0.79	4.0	60.0	30	
IR-2	820.0	± 10 %	30	0.79	3.8	65.0	29	
IR-2	1000.0	± 10 %	30	0.79	3.4	72.0	28	
IR-4	0.15	± 20 %	50	25.0	525.0	0.03	2450	PHENOLIC CORE
IR-4	0.22	± 20 %	50	25.0	450.0	0.055	1810	
IR-4	0.33	± 20 %	45	25.0	360.0	0.09	1400	
IR-4	0.47	± 20 %	45	25.0	310.0	0.12	1225	
IR-4	0.56	± 10 %	50	25.0	280.0	0.135	1150	
IR-4	0.68	± 10 %	50	25.0	250.0	0.15	1100	
IR-4	0.82	± 10 %	50	25.0	220.0	0.22	900	
IR-4	1.0	± 10 %	50	25.0	200.0	0.29	785	
IR-4	1.2	± 10 %	33	7.9	180.0	0.42	650	
IR-4	1.5	± 10 %	33	7.9	160.0	0.50	600	
IR-4	1.8	± 10 %	33	7.9	150.0	0.65	525	
IR-4	2.2	± 10 %	33	7.9	135.0	0.95	435	
IR-4	2.7	± 10 %	33	7.9	120.0	1.20	385	
IR-4	3.3	± 10 %	33	7.9	110.0	2.00	300	
IR-4	3.9	± 10 %	33	7.9	100.0	2.30	280	
IR-4	4.7	± 10 %	33	7.9	90.0	2.60	260	

* Measured with full length lead.

** Rated DC Current based on maximum temperature rise as shown in table.

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. (µH)	TOL.	Q MIN.	TEST FREQ. L & Q (MHz)	SELF-RESONANT* FREQ MIN. (MHz)	DCR MAX. (Ohms)	RATED DC** CURRENT (mA)	
IR-4	5.6	± 10 %	45	7.9	60.0	32.0	495	IRON CORE
IR-4	6.8	± 10 %	50	7.9	55.0	0.50	395	
IR-4	8.2	± 10 %	50	7.9	50.0	0.60	360	
IR-4	10.0	± 10 %	55	7.9	45.0	0.90	290	
IR-4	12.0	± 10 %	65	2.5	42.0	1.10	265	
IR-4	15.0	± 10 %	65	2.5	40.0	1.40	240	
IR-4	18.0	± 10 %	75	2.5	34.0	2.25	185	
IR-4	22.0	± 10 %	75	2.5	30.0	2.50	175	
IR-4	27.0	± 10 %	60	2.5	25.0	2.60	170	
IR-4	33.0	± 10 %	65	2.5	19.0	3.0	165	
IR-4	36.0	± 5 %	60	2.5	15.5	2.50	180	
IR-4	39.0	± 5 %	60	2.5	14.5	2.60	176	
IR-4	43.0	± 5 %	60	2.5	13.7	2.70	172	
IR-4	47.0	± 5 %	55	2.5	13.0	2.75	170	
IR-4	51.0	± 5 %	55	2.5	12.7	2.85	167	
IR-4	56.0	± 5 %	55	2.5	12.0	3.0	164	
IR-4	62.0	± 5 %	55	2.5	11.5	3.15	160	
IR-4	68.0	± 5 %	55	2.5	11.0	3.30	156	
IR-4	75.0	± 5 %	55	2.5	10.5	3.70	147	
IR-4	82.0	± 5 %	50	2.5	10.3	3.90	143	
IR-4	91.0	± 5 %	50	2.5	10.0	4.30	136	
IR-4	100.0	± 5 %	50	2.5	9.5	4.50	133	
IR-4	110.0	± 5 %	60	0.79	8.9	4.90	128	
IR-4	120.0	± 5 %	65	0.79	8.7	5.20	124	
IR-4	130.0	± 5 %	65	0.79	8.5	5.45	121	
IR-4	150.0	± 5 %	65	0.79	8.0	6.05	114	
IR-4	160.0	± 5 %	65	0.79	7.5	6.40	111	
IR-4	180.0	± 5 %	65	0.79	7.0	6.75	108	
IR-4	200.0	± 5 %	65	0.79	6.5	7.10	106	
IR-4	220.0	± 5 %	65	0.79	6.2	7.45	103	
IR-4	240.0	± 5 %	65	0.79	5.9	7.80	101	
IR-4	270.0	± 5 %	65	0.79	5.7	11.0	129	
IR-4	300.0	± 5 %	65	0.79	5.4	11.5	125	
IR-4	330.0	± 5 %	65	0.79	5.1	12.0	123	
IR-4	360.0	± 5 %	65	0.79	4.8	15.5	108	
IR-4	390.0	± 5 %	65	0.79	4.5	16.3	105	
IR-4	430.0	± 5 %	65	0.79	4.2	17.1	102	
IR-4	470.0	± 5 %	65	0.79	3.9	17.9	100	
IR-4	510.0	± 5 %	65	0.79	3.7	18.8	98	
IR-4	560.0	± 5 %	65	0.79	3.5	24.7	85	
IR-4	620.0	± 5 %	65	0.79	3.3	25.9	83	
IR-4	680.0	± 5 %	55	0.79	3.1	27.2	81	
IR-4	750.0	± 5 %	55	0.79	2.9	28.6	79	
IR-4	820.0	± 5 %	55	0.79	2.7	30.0	77	
IR-4	910.0	± 5 %	55	0.79	2.5	31.5	76	
IR-4	1000.0	± 5 %	55	0.79	2.3	33.1	74	
IR-4	1100.0	± 5 %	30	0.25	2.1	43.5	64	
IR-4	1200.0	± 5 %	30	0.25	2.0	45.7	63	
IR-4	1300.0	± 5 %	30	0.25	1.9	49.0	61	
IR-4	1500.0	± 5 %	30	0.25	1.8	52.5	59	
IR-4	1600.0	± 5 %	30	0.25	1.7	54.0	58	
IR-4	1800.0	± 5 %	30	0.25	1.6	56.7	56	

* Measured with full length lead.

** Rated DC Current based on maximum temperature rise as shown in table.

DESCRIPTION

IR-2	10 µH	± 10 %	ER	e2
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER INFORMATION

I	R	0	2	E	R	1	0	0	K
MODEL				PACKING CODE		INDUCTANCE VALUE			TOL.

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