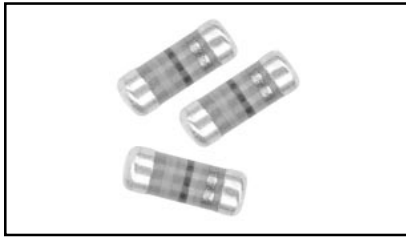


Mini Melf Inductors High Q



FEATURES

- Stable metal film on high quality ceramic.
- High Q values on higher frequencies.
- Compatible with vapor phase and infrared reflow soldering.
- Automatic placement capability.

APPLICATIONS

Applicable for TV-sets, cordless telephones, PCMCIA-cards, tuners, modems and video equipment.

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. (nH)	TOL.	Q Min.	Q Typical Frequency (MHz)										SRF Min. (MHz)	DCR Max. (Ohms)	IDC Max. (mA)
				100MHz	100	200	300	450	500	800	900	1000	1700			
SIM-0204	1.0	± 0.3nH	16	22	38	57	74	80	98	110	122	150	—	9800	.009	2500
SIM-0204	1.2	± 0.3nH	16	24	38	55	73	80	100	110	120	155	—	9300	.012	2500
SIM-0204	1.5	± 0.3nH	16	25	40	55	70	75	97	105	110	150	—	9000	.015	2500
SIM-0204	1.8	± 0.3nH	16	25	38	53	61	70	90	95	100	120	140	8500	.020	2500
SIM-0204	2.2	± 0.3nH	16	26	37	43	50	53	65	70	73	95	100	8000	.025	2000
SIM-0204	2.7	± 0.3nH	16	21	29	35	40	45	58	61	65	92	98	8500	.030	2000
SIM-0204	3.3	± 0.3nH	16	19	25	30	37	40	55	60	63	90	98	7000	.037	2000
SIM-0204	3.9	± 10%	16	19	25	31	37	41	55	60	65	92	97	6800	.045	1500
SIM-0204	4.7	± 10%	16	20	25	32	38	45	62	66	70	92	97	6500	.060	1500
SIM-0204	5.6	± 10%	16	20	23	30	35	43	58	62	67	90	95	6200	.075	1500
SIM-0204	6.8	± 10%	16	19	23	30	38	47	58	60	65	87	90	6000	.090	1500
SIM-0204	8.2	± 10%	16	19	23	28	34	38	55	58	63	86	90	5800	.120	1500
SIM-0204	10	± 10%	16	18	23	27	33	37	50	55	60	85	87	5600	.150	1500
SIM-0204	12	± 10%	16	18	23	28	35	40	53	57	60	78	82	5100	.180	1000
SIM-0204	15	± 10%	16	18	24	30	36	40	50	53	55	70	72	4500	.200	1000
SIM-0204	18	± 10%	16	18	25	31	40	42	50	52	55	64	65	4100	.250	1000
SIM-0204	22	± 10%	16	18	25	30	35	40	53	58	65	52	50	3800	.300	1000
SIM-0204	27	± 10%	16	20	27	33	37	43	60	67	72	60	58	3400	.350	650
SIM-0204	33	± 10%	16	21	30	35	38	43	58	65	75	60	58	3200	.400	650
SIM-0204	39	± 10%	16	21	30	35	40	45	60	65	70	50	48	3000	.500	650
SIM-0204	47	± 10%	16	22	30	37	47	49	65	68	70	48	45	2800	.600	500
SIM-0204	56	± 10%	16	22	30	38	46	50	65	70	67	45	40	2500	.800	500
SIM-0204	68	± 10%	16	23	31	38	44	48	58	60	57	32	—	2300	1.0	400
SIM-0204	82	± 10%	16	23	31	38	48	50	60	55	45	—	—	2100	1.4	400
SIM-0204	100	± 10%	16	23	31	38	48	50	59	57	52	—	—	2000	1.7	400

ELECTRICAL SPECIFICATIONS

Operating Temperature Range: - 55°C to + 125°C.

TEST EQUIPMENT

Inductance & Q: HP4291A; HP4286 Fixture 16192A.

RDC: esi1700.

SRF: HP4342A; HP8753B; HP8753D; HP4291A.

Q vs. Frequency: HP4291a Test fixture-HP16192A.

IDC: Determined when inductance is decreased 10% against its initial value.

ENVIRONMENTAL SPECIFICATIONS

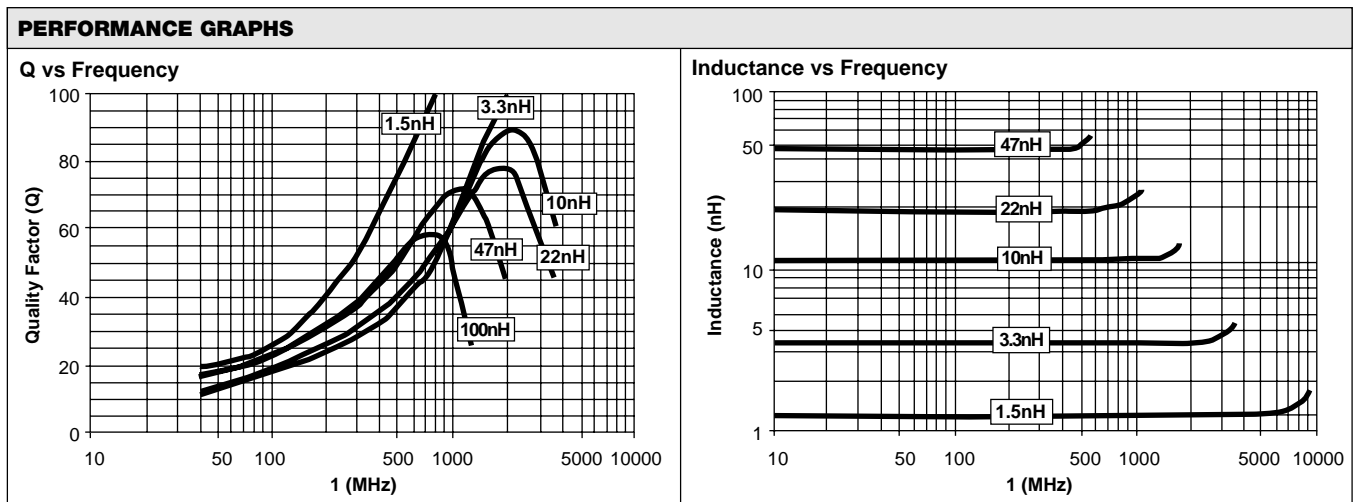
TEST	CONDITIONS
Temperature coefficient of inductance	± 100PPM/K
Working temperature range	- 55°C to + 125°C
Q _{min} at 45MHz	11
Core Material	85% Alumina
Dielectric Withstanding Voltage	500 V AC
Insulation Resistance	> 1.000MΩ
Weight per 1000 pieces	20g
Flammability (withstands needle flame test)	IEC 695-2-2
Solderability	Max. 260°C for 10 sec.



DIMENSIONAL CONFIGURATIONS					
[Numbers in brackets indicate millimeters]					
MODEL	D _{Max.}	d*	L	A _{Max.}	A _{Min.}
SIM-0204	.055 [1.4]	D - .006 [D - 0.15]	.142 - .006 [3.6 - 0.15]	.033 [0.85]	.020 [0.5]

SUGGESTED SOLDER PAD LAYOUT					
[Numbers in brackets indicate millimeters]					
Reflow			Wave		
a	b	l	a	b	l
.040 [1.0]	.063 [1.6]	.087 [2.2]	.047 [1.2]	.063 [1.6]	.087 [2.2]

*d measured in the middle of the inductor.



ENVIRONMENTAL PERFORMANCE		
TEST	CONDITIONS	TEST RESULTS ($\Delta L / \Delta Q$)
Static Humidity	Inductor subjected to 95 ± 5% R.H. at 50°C ± 2% for 100 hours	± 3% / ± 5%
High temperature storage	Inductor subjected to + 125°C for 48 ± 2 hours	± 5% / ± 10%
Thermal shock	10 cycles of - 40°C/30 minutes and + 125°C/30 minutes	± 5% / ± 10%
Low temperature storage	Inductor shall be subjected to - 40°C ± 2°C for 48 ± 2 hours	± 5% / ± 10%
High temperature load life	Biased to full rated current at + 85°C for 1000 hours	± 5% / ± 10%

NOTE: Unless otherwise specified, measurements shall be performed within two hours after leaving test samples for more than one hour at the normal temperature and humidity.

PACKAGING [Numbers in brackets indicate millimeters]								
MODEL	REEL				BULK			
	Tape width	Diameter	Pieces/Reel	Code	Bulk Feeding Magazine		Loose in Plastic Container	
					Pieces/Magazine		Pieces/Container	
					Pieces	Code	Pieces	Code
SIM-0204	8mm	7.09 [180]	3000	B3	3000	M3	5000	L5
	Blisertape	13.0 [330]	10000	B0				

HOW TO ORDER				
<u>SIM-0204</u>	<u>EC</u>	<u>3.3nH</u>	<u>± 10%</u>	<u>B0</u>
MODEL	VERSION	INDUCTANCE VALUE	TOLERANCE	PACKAGING
	EC = Epoxy Coated			B0 = Blisertape 10,000 pcs