



# Surface Mount Ferrite Products

*Inductors & Ferrite Beads*

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## Wire Wound Chip Inductors - L-PWS/L-PWF/L-PWI/L-PWR Series

**Features:**

- Small size wound chip inductor with low DC resistance
- Dimension without directional influence on mountability and characteristics

**Operating Temperature:**

- -1 °C to +105°C (including self-generated heat)

**Applications:**

- Digital Still Cameras (DSC), Digital Video Cameras (DVC), PDA's and other portable digital equipment
- Portable telephones and wireless LAN

### Part Numbering Table



### Dimension Table in millimeters (inches)



EIA Case Code	Metric Dim. Code	L Length (inches)	W Width (inches)	T Thickness Maximum (inches)	E (inches)
0603	1608	1.6 ±0.1 (0.063 ±0.004)	0.8 ±0.1 (0.031 ±0.004)	0.8 ±0.1 (0.031 ±0.004)	0.35 ±0.2 (0.014 ±0.008)
0805	2012	2.0 ±0.2 (0.079 ±0.008)	1.25 ±0.2 (0.049 ±0.008)	1.25 ±0.2 (0.049 ±0.008)	0.5 ±0.2 (0.02 ±0.008)
0806	2016	2.0 ±0.2 (0.079 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	0.5 ±0.2 (0.02 ±0.008)
1007	2518	2.5 ±0.2 (0.098 ±0.008)	1.8 ±0.2 (0.072 ±0.008)	1.8 ±0.2 (0.072 ±0.008)	0.5 ±0.2 (0.02 ±0.008)
1207	3218	3.2 ±0.2 (0.128 ±0.008)	1.8 ±0.2 (0.072 ±0.008)	1.8 ±0.2 (0.072 ±0.008)	0.6 ±0.2 (0.024 ±0.008)

# Wire Wound Chip Inductors - L-PWS, L-PWF, L-PWI, L-PWR Series

## 0805 Case Size Standard Type (L-PWS Series)

Ordering Code	Inductance (µH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L0805C1R0MPWST	1.0	±20%	100	0.15	300	7.96	3,000
L0805C2R2MPWST	2.2	±20%	80	0.23	240	7.96	3,000
L0805C4R7MPWST	4.7	±20%	45	0.40	140	7.96	3,000
L0805C100MPWST	10	±20%	32	0.70	100	2.52	3,000
L0805R100MPWST*	10	±20%	32	0.50	100	2.52	3,000
L0805C220MPWST	22	±20%	15	1.70	75	2.52	3,000
L0805C470MPWST	47	±20%	11	3.70	50	2.52	3,000
L0805C101MPWST	100	±20%	8	7.00	30	0.796	3,000

\* Low Rdc type

## 0806 Case Size Standard Type (L-PWS Series)

Ordering Code	Inductance (µH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L0806C1R0MPWST	1.0	±20%	100	0.09	455	7.96	2,000
L0806C1R5MPWST	1.5	±20%	80	0.11	350	7.96	2,000
L0806C2R2MPWST	2.2	±20%	70	0.13	315	7.96	2,000
L0806C3R3MPWST	3.3	±20%	55	0.20	280	7.96	2,000
L0806C4R7MPWST	4.7	±20%	45	0.25	210	7.96	2,000
L0806C6R8MPWST	6.8	±20%	38	0.35	175	7.96	2,000
L0806C100MPWST	10	±20%	32	0.50	155	2.52	2,000
L0806C150MPWST	15	±20%	28	0.70	130	2.52	2,000
L0806C220MPWST	22	±20%	16	1.00	105	2.52	2,000
L0806C330MPWST	33	±20%	14	1.70	85	2.52	2,000
L0806C470MPWST	47	±20%	11	2.40	60	2.52	2,000
L0806C680MPWST	68	±20%	10	3.00	50	2.52	2,000
L0806C101MPWST	100	±20%	8	4.50	40	0.796	2,000

## 1007 Case Size Standard Type (L-PWS Series)

Ordering Code	Inductance (µH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L1007C1R0MPWST	1.0	±20%	100	0.06	500	7.96	2,000
L1007C1R5MPWST	1.5	±20%	80	0.07	400	7.96	2,000
L1007C2R2MPWST	2.2	±20%	68	0.09	340	7.96	2,000
L1007C3R3MPWST	3.3	±20%	54	0.11	270	7.96	2,000
L1007C4R7MPWST	4.7	±20%	46	0.13	240	7.96	2,000
L1007R4R7MPWST	4.7	±20%	46	0.10	235	7.96	2,000
L1007C6R8MPWST	6.8	±20%	38	0.15	195	7.96	2,000
L1007C100MPWST	10	±20%	30	0.25	165	2.52	2,000
L1007C150MPWST	15	±20%	23	0.32	145	2.52	2,000
L1007C220MPWST	22	±20%	19	0.50	115	2.52	2,000
L1007C330MPWST	33	±20%	15	0.70	95	2.52	2,000
L1007C470MPWST	47	±20%	12	0.95	85	2.52	2,000
L1007C680MPWST	68	±20%	9.5	1.50	70	2.52	2,000
L1007C101MPWST	100	±20%	9	2.10	55	0.796	2,000
L1007C151MPWST	150	±20%	7	3.20	45	0.796	2,000
L1007C221MPWST	220	±20%	5.5	4.50	35	0.796	2,000
L1007C331MPWST	330	±20%	4.5	7.00	30	0.796	2,000
L1007C471MPWST	470	±20%	3.5	10.00	25	0.796	2,000
L1007C681MPWST	680	±20%	3	17.00	20	0.796	2,000
L1007C102MPWST	1000	±20%	2.4	24.00	15	0.252	2,000

### 1207 Case Size Standard Type (L-PWS Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L1207C1R0MPWST	1.0	±20%	100	0.06	1075	7.96	2,000
L1207C1R5MPWST	1.5	±20%	80	0.07	860	7.96	2,000
L1207C2R2MPWST	2.2	±20%	68	0.09	775	7.96	2,000
L1207C3R3MPWST	3.3	±20%	54	0.11	560	7.96	2,000
L1207C4R7MPWST	4.7	±20%	41	0.13	550	7.96	2,000
L1207C6R8MPWST	6.8	±20%	40	0.17	380	7.96	2,000
L1207C100(P)WST	10	K=±10%, M=±20%	30	0.25	340	2.52	2,000
L1207C150(P)WST	15	K=±10%, M=±20%	25	0.32	300	2.52	2,000
L1207C220(P)WST	22	K=±10%, M=±20%	19	0.49	255	2.52	2,000
L1207C330(P)WST	33	K=±10%, M=±20%	15	0.75	215	2.52	2,000
L1207C470(P)WST	47	K=±10%, M=±20%	12	0.92	205	2.52	2,000
L1207C680(P)WST	68	K=±10%, M=±20%	11	1.49	145	2.52	2,000
L1207C101(P)WST	100	K=±10%, M=±20%	8	2.40	140	0.796	2,000
L1207C151(P)WST	150	K=±10%, M=±20%	7	3.20	105	0.796	2,000
L1207C221(P)WST	220	K=±10%, M=±20%	5	5.40	80	0.796	2,000
L1207C331(P)WST	330	K=±10%, M=±20%	4	7.00	65	0.796	2,000
L1207C471(P)WST	470	K=±10%, M=±20%	3.5	14.00	54	0.796	2,000
L1207C681(P)WST	680	K=±10%, M=±20%	3	17.00	45	0.796	2,000
L1207C102(P)WST	1000	K=±10%, M=±20%	2.4	27.00	39	0.252	2,000

( ) - Insert Inductance Tolerance Code (K or M)

### 0603 Case Size Standard Type (L-PWF Series - Bottom Surface Electrodes)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L0603B1R0MPWFT	1.0	±20%	100	0.19	620	7.96	3,000
L0603B2R2MPWFT	2.2	±20%	70	0.33	430	7.96	3,000
L0603B4R7MPWFT	4.7	±20%	45	0.50	295	7.96	3,000
L0603B100(P)WFT	10	K=±10%, M=±20%	40	1.20	200	2.52	3,000
L0603B220(P)WFT	22	K=±10%, M=±20%	16	3.70	130	2.52	3,000
L0603B470(P)WFT	47	K=±10%, M=±20%	11	5.80	90	2.52	3,000

( ) - Insert Inductance Tolerance Code (K or M)

### 0805 Case Size High Current Type (L-PWI Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L0805C1R0MPWIT	1.0	±20%	100	0.19	620	7.96	3,000
L0805C2R2MPWIT	2.2	±20%	70	0.33	430	7.96	3,000
L0805C4R7MPWIT	4.7	±20%	45	0.50	295	7.96	3,000
L0805C100MPWIT	10	±20%	40	1.20	200	2.52	3,000
L0805C220MPWIT	22	±20%	16	3.70	130	2.52	3,000
L0805C470MPWIT	47	±20%	11	5.80	90	2.52	3,000

### 0806 Case Size High Current Type (L-PWI Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L0806C1R0MPWIT	1.0	±20%	100	0.10	690	7.96	2,000
L0806C1R5MPWIT	1.5	±20%	80	0.15	600	7.96	2,000
L0806C2R2MPWIT	2.2	±20%	70	0.20	520	7.96	2,000
L0806C3R3MPWIT	3.3	±20%	55	0.27	410	7.96	2,000
L0806C4R7MPWIT	4.7	±20%	45	0.37	355	7.96	2,000
L0806C6R8MPWIT	6.8	±20%	38	0.59	290	7.96	2,000
L0806C100MPWIT	10	±20%	32	0.82	245	2.52	2,000
L0806C150MPWIT	15	±20%	28	1.20	200	2.52	2,000
L0806C220MPWIT	22	±20%	16	1.80	165	2.52	2,000
L0806C330MPWIT	33	±20%	14	2.80	135	2.52	2,000
L0806C470MPWIT	47	±20%	11	4.30	110	2.52	2,000
L0806C680MPWIT	68	±20%	10	7.00	95	2.52	2,000
L0806C101MPWIT	100	±20%	8	8.00	75	0.796	2,000

# Wire Wound Chip Inductors - L-PWS, L-PWF, L-PWI, L-PWR Series

## 1007 Case Size High Current Type (L-PWI Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L1007C1R0MPWIT	1.0	±20%	100	0.08	775	7.96	2,000
L1007R1R0MPWIT*	1.0	±20%	100	0.065	890	7.96	2,000
L1007C1R5MPWIT	1.5	±20%	80	0.11	660	7.96	2,000
L1007C2R2MPWIT	2.2	±20%	68	0.13	600	7.96	2,000
L1007C3R3MPWIT	3.3	±20%	54	0.16	500	7.96	2,000
L1007C4R7MPWIT	4.7	±20%	41	0.20	430	7.96	2,000
L1007C6R8MPWIT	6.8	±20%	38	0.30	360	7.96	2,000
L1007C100MPWIT	10	±20%	30	0.36	300	2.52	2,000
L1007C150MPWIT	15	±20%	23	0.65	250	2.52	2,000
L1007C220MPWIT	22	±20%	19	0.77	210	2.52	2,000
L1007C330MPWIT	33	±20%	15	1.50	170	2.52	2,000
L1007C470MPWIT	47	±20%	12	1.90	150	2.52	2,000
L1007C680MPWIT	68	±20%	9.5	2.80	120	2.52	2,000
L1007C101MPWIT	100	±20%	9.0	3.70	100	0.796	2,000
L1007C151MPWIT	150	±20%	7.0	6.10	85	0.796	2,000
L1007C221MPWIT	220	±20%	5.5	8.40	70	0.796	2,000
L1007C331MPWIT	330	±20%	4.5	12.30	60	0.796	2,000
L1007C471MPWIT	470	±20%	3.5	22.00	45	0.796	2,000
L1007C681MPWIT	680	±20%	3.0	28.00	35	0.796	2,000

\* Low Rdc Type

## 0805 Case Size Low Rdc Type (L-PWR Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L0805R1R0MPWRT	1.0	±20%	100	0.07	200	7.96	3,000
L0805R2R2MPWRT	2.2	±20%	80	0.13	175	7.96	3,000
L0805R4R7MPWRT	4.7	±20%	45	0.24	150	7.96	3,000
L0805R100MPWRT	10	±20%	32	0.36	125	2.52	3,000
L0805R220MPWRT	22	±20%	16	1.00	100	2.52	3,000
L0805R470MPWRT	47	±20%	11	1.70	75	2.52	3,000
L0805R101MPWRT	100	±20%	8	4.00	50	0.796	3,000

## 1007 Case Size Low Rdc Type (L-PWR Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
L1007R1R0MPWRT	1.0	±20%	100	0.045	400	7.96	2,000
L1007R2R2MPWRT	2.2	±20%	68	0.07	280	7.96	2,000
L1007R4R7MPWRT	4.7	±20%	45	0.1	200	7.96	2,000
L1007R100MPWRT	10	±20%	30	0.19	180	2.52	2,000
L1007R220MPWRT	22	±20%	19	0.44	120	2.52	2,000
L1007R470MPWRT	47	±20%	11	0.84	95	2.52	2,000
L1007R101MPWRT	100	±20%	9	1.89	75	0.796	2,000

## Wire Wound Chip Inductors - L-DWS/L-DWI/L-DWL/L-DWF Series

**Features:**

- Small size wound chip inductor with high current
- Dimension without directional influence on mountability and characteristics

**Operating Temperature:**

- -1 °C to +105°C (including self-generated heat)

**Applications:**

- Digital Still Cameras (DSC), Digital Video Cameras (DVC), PDA's and other portable digital equipment
- For DC-DC converter circuit

### Part Numbering Table



### Dimension Table in millimeters (inches)



EIA Case Size	Metric Dim. Code	L Length (inches)	W Width (inches)	T Thickness Maximum (inches)	E (inches)
0603	1608	1.6 ±0.2 (0.063 ±0.008)	0.8 ±0.2 (0.031 ±0.008)	0.8 ±0.2 (0.031 ±0.008)	0.4 ±0.15 (0.015 ±0.006)
0805	2012	2.0 ±0.2 (0.079 ±0.008)	1.25 ±0.2 (0.049 ±0.008)	1.25 ±0.2 (0.049 ±0.008)	0.5 ±0.2 (0.02 ±0.008)
0806	2016	2.0 ±0.2 (0.079 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	0.5 ±0.2 (0.02 ±0.008)
1007	2518	2.5 ±0.2 (0.098 ±0.008)	1.8 ±0.2 (0.071 ±0.008)	1.8 ±0.2 (0.071 ±0.008)	0.5 ±0.2 (0.02 ±0.008)
1210	3225	3.2 ±0.2 (0.126 ±0.008)	2.5 ±0.2 (0.098 ±0.008)	2.5 ±0.2 (0.098 ±0.008)	0.6 ±0.3 (0.024 ±0.012)



# Wire Wound Chip Inductors - L-DWS, L-DWI, L-DWL, L-DWF Series

## 0805 Case Size Standard Type (L-DWS Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)		Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
					1	2		
L0805C2R2MDWST	2.2	±20%	80	0.23	410	770	7.96	3,000
L0805C4R7MDWST	4.7	±20%	45	0.40	300	580	7.96	3,000
L0805R100MDWST	10	±20%	32	0.50	200	520	2.52	3,000
L0805C220MDWST	22	±20%	16	1.70	135	280	2.52	3,000
L0805C470MDWST	47	±20%	11	3.70	90	190	2.52	3,000

## 0806 Case Size Standard Type (L-DWS Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)		Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
					1	2		
L0806C2R2MDWST	2.2	±20%	70	0.13	510	1000	7.96	2,000
L0806C4R7MDWST	4.7	±20%	45	0.25	340	740	7.96	2,000
L0806C100MDWST	10	±20%	32	0.50	250	520	2.52	2,000
L0806C220MDWST	22	±20%	16	1.00	165	370	2.52	2,000
L0806C470MDWST	47	±20%	11	2.40	110	240	2.52	2,000

## 1007 Case Size Standard Type (L-DWS Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)		Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
					1	2		
L1007C2R2MDWST	2.2	±20%	68	0.09	510	1300	7.96	2,000
L1007C4R7MDWST	4.7	±20%	46	0.13	340	1100	7.96	2,000
L1007C100MDWST	10	±20%	30	0.25	250	820	2.52	2,000
L1007C220MDWST	22	±20%	19	0.50	165	580	2.52	2,000
L1007C470MDWST	47	±20%	12	0.95	110	420	2.52	2,000

## 0805 Case Size High Current Type (L-DWI Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)		Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
					1	2		
L0805C1R0MDWIT	1.0	±20%	100	0.19	700	840	7.96	3,000
L0805C2R2MDWIT	2.2	±20%	70	0.33	530	640	7.96	3,000
L0805C4R7MDWIT	4.7	±20%	45	0.50	360	520	7.96	3,000
L0805C100MDWIT	10	±20%	40	1.20	240	340	2.52	3,000
L0805C220MDWIT	22	±20%	16	3.70	170	190	2.52	3,000
L0805C470MDWIT	47	±20%	11	5.80	120	150	2.52	3,000

## 0806 Case Size High Current Type (L-DWI Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)		Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
					1	2		
L0806C1R0MDWIT	1.0	±20%	100	0.1	1100	1100	7.96	3,000
L0806C1R5MDWIT	1.5	±20%	80	0.15	1000	1000	7.96	3,000
L0806C2R2MDWIT	2.2	±20%	70	0.20	750	720	7.96	3,000
L0806C3R3MDWIT	3.3	±20%	55	0.27	600	610	7.96	3,000
L0806C4R7MDWIT	4.7	±20%	45	0.37	550	530	7.96	3,000
L0806C6R8MDWIT	6.8	±20%	38	0.59	450	450	7.96	3,000
L0806C100( )DWIT	10	K=±10%, M=±20%	32	0.82	380	350	2.52	3,000
L0806C150( )DWIT	15	K=±10%, M=±20%	28	1.2	300	300	2.52	3,000
L0806C220( )DWIT	22	K=±10%, M=±20%	16	1.8	250	240	2.52	3,000
L0806C330( )DWIT	33	K=±10%, M=±20%	14	2.8	220	220	2.52	3,000
L0806C470( )DWIT	47	K=±10%, M=±20%	11	4.3	150	150	2.52	3,000
L0806C680( )DWIT	68	K=±10%, M=±20%	10	7	130	130	2.52	3,000
L0806C101( )DWIT	100	K=±10%, M=±20%	8	8	110	110	0.796	3,000

( ) - Insert Inductance Tolerance Code (K or M)

\*For rated current of ordinary small power choke coils, please refer to the rated current (1) in the above table.

\*For current (2) is the current for instantaneous flow such as plunging current of DC/DC converter.

In case of usage in the circuit where large current may be semicontinuously applied over 5 minutes with auto recovery circuit, etc, please contact our sales section before practical application.

Rated current (1):Current value to guarantee -30% of nominal inductance

Rated current (2):Current value to guarantee component temperature within ΔT = 40°C with current flow. (It's not the current to guarantee the inductance value)

### 1007 Case Size High Current Type (L-DWI Series)

Ordering Code	Inductance (µH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)		Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
					1	2		
L1007C1R0MDWIT	1.0	±20%	100	0.08	1000	1200	7.96	2,000
L1007C2R2MDWIT	2.2	±20%	68	0.13	890	1100	7.96	2,000
L1007C4R7MDWIT	4.7	±20%	41	0.20	680	920	7.96	2,000
L1007C100MDWIT	10	±20%	30	0.36	480	680	2.52	2,000
L1007C220MDWIT	22	±20%	19	0.77	320	460	2.52	2,000
L1007C470MDWIT	47	±20%	12	1.90	240	290	2.52	2,000
L1007C101MDWIT	100	±20%	9	3.7	160	170	0.796	2,000
L1007C220MDWIT	220	±20%	5.5	8.4	115	110	0.796	2,000
L1007C470MDWIT	470	±20%	3.5	22	80	70	0.796	2,000
L1007C681MDWIT	680	±20%	3	28	65	60	0.796	2,000

### 1210 Case Size High Current Low Rdc Type (L-DWI Series)

Ordering Code	Inductance (µH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)		Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
					1	2		
L1210R1R0MDWIT	1.0	±20%	250	0.055	2000	1440	0.1	1,000
L1210R1R5MDWIT	1.5	±20%	220	0.06	2000	1310	0.1	1,000
L1210R2R2MDWIT	2.2	±20%	190	0.08	2000	1130	0.1	1,000
L1210R3R3MDWIT	3.3	±20%	160	0.095	1800	1040	0.1	1,000
L1210R4R7MDWIT	4.7	±20%	70	0.1	1250	1010	0.1	1,000
L1210R6R8MDWIT	6.8	±20%	50	0.12	930	940	0.1	1,000
L1210R100( )DWIT	10	K=±10%, M=±20%	23	0.133	900	900	0.1	1,000
L1210R150( )DWIT	15	K=±10%, M=±20%	20	0.195	730	850	0.1	1,000
L1210R220( )DWIT	22	K=±10%, M=±20%	17	0.27	620	780	0.1	1,000
L1210R330( )DWIT	33	K=±10%, M=±20%	13	0.41	500	570	0.1	1,000
L1210R470( )DWIT	47	K=±10%, M=±20%	10	0.67	390	480	0.1	1,000
L1210R680( )DWIT	68	K=±10%, M=±20%	8	1	320	410	0.1	1,000
L1210R101( )DWIT	100	K=±10%, M=±20%	6	1.4	270	340	0.1	1,000

( ) - Insert Inductance Tolerance Code (K or M)

### 0805 Case Size Low Profile Type (L-DWL Series)

Ordering Code	Inductance (µH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)		Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
					1	2		
L0805C4R7MDWLT	4.7	±20%	45	0.66	275	490	0.10	4,000
L0805C100MDWLT	10	±20%	32	1.00	205	370	0.10	4,000
L0805C470MDWLT	47	±20%	11	4.20	100	140	0.10	4,000

### 0603 Case Size Power, Bottom Surface Electrode Type (L-DWF 1608 Series)

Ordering Code	Inductance (µH)	Inductance Tolerance	Minimum Self Resonant Frequency (MHz)	DC Resistance (Ω) (±30%)	Maximum Rated Current (mA)		Measuring Frequency (MHz)	Tape & Reel Packaging Quantity
					1	2		
L0603B1R0MDWFT	1.0	±20%	100	0.09	290	770	7.96	2,000
L0603B2R2MDWFT	2.2	±20%	80	0.17	190	560	7.96	2,000
L0603B4R7MDWFT	4.7	±20%	45	0.24	145	470	7.96	2,000
L0603B100( )DWFT	10	K=±10%, M=±20%	32	0.36	115	380	2.52	2,000
L0603B220( )DWFT	22	K=±10%, M=±20%	16	1.00	70	230	2.52	2,000
L0603B470( )DWFT	47	K=±10%, M=±20%	11	2.5	50	140	2.52	2,000

( ) - Insert Inductance Tolerance Code (K or M)

\*For rated current of ordinary small power choke coils, please refer to the rated current (1) in the above table.

\*For current (2) is the current for instantaneous flow such as plunging current of DC/DC converter.

In case of usage in the circuit where large current may be semicontinuously applied over 5 minutes with auto recovery circuit, etc, please contact our sales section before practical application.

Rated current (1): Current value to guarantee -30% of nominal inductance (at 20°C)

Rated current (2): Current value to guarantee component temperature within ΔT = 40°C with current flow. (It's not the current to guarantee the inductance value)

## Multilayer Chip Inductors for High Frequency - L-RMS Series

### Features:

- Multilayer inductor made of advanced ceramics with low resistivity silver used as internal conductors, provides excellent Q and SRF characteristics
- Multilayer block structure ensures outstanding reliability, high productivity and excellent product quality

### Operating Temperature:

- 0201: -55°C to +125°C
- 0402: -55°C to +125°C
- 0805: -40°C to +85°C

### Applications:

- Designed to address surface mount inductor needs for applications above 100MHz
- Mobile phones and pagers
- High frequency circuits
- EMI counter measures in high frequency circuits

## Part Numbering Table



## Dimension Table in millimeters (inches)



EIA Case Size	Metric Dim. Code	L Length (inches)	W Width (inches)	T Thickness Maximum (inches)	E (inches)
0201	0603	0.6 ±0.03 (0.024 ±0.001)	0.3 ±0.03 (0.012 ±0.001)	0.3 ±0.03 (0.012 ±0.001)	0.15 ±0.05 (0.006 ±0.002)
0402	1005	1.0 ±0.05 (0.039 ±0.002)	0.5 ±0.05 (0.02 ±0.002)	0.5 ±0.05 (0.02 ±0.002)	0.25 ±0.10 (0.01 ±0.004)
0603	1608	1.6 ±0.15 (0.063 ±0.006)	0.8 ±0.15 (0.031 ±0.006)	0.8 ±0.15 (0.031 ±0.006)	0.3 ±0.2 (0.012 ±0.008)
0805	2125	2.0 +0.3/-0.1 (0.079 +0.012/-0.004)	1.25 ±0.2 (0.049 ±0.008)	0.85 ±0.2 1.0 +0.2/-0.3 (0.033 ±0.008) (0.039 +0.008/-0.012)	0.5 ±0.3 (0.020 ±0.012)

### 0201 Case Size Multilayer Chip Inductors for High Frequency (L-RMS Series)

Ordering Code	Inductance (nH)	Inductance Tolerance	Q min.	Measuring Frequency (MHz)	Typical Q					Self-resonant Frequency (MHz)		DC Resistance ( $\Omega$ )		Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
					Frequency (MHz)					min.	typ.	max.	typ.			
					100	300	500	800	1000							
L0201C1N0SRMST	1.0	$\pm 0.3\text{nH}$	4	100	6	12	17	22	27	10000	>13000	0.14	0.088	250	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C1N2SRMST	1.2	$\pm 0.3\text{nH}$	4	100	6	12	16	21	25	10000	>13000	0.14	0.089	250	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C1N5SRMST	1.5	$\pm 0.3\text{nH}$	4	100	6	12	15	20	23	10000	>13000	0.18	0.11	230	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C1N8SRMST	1.8	$\pm 0.3\text{nH}$	4	100	6	12	15	20	23	10000	>13000	0.19	0.12	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C2N2SRMST	2.2	$\pm 0.3\text{nH}$	4	100	6	12	15	20	22	8800	12500	0.22	0.14	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C2N7SRMST	2.7	$\pm 0.3\text{nH}$	5	100	7	12	15	20	22	7700	11000	0.25	0.16	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C3N3SRMST	3.3	$\pm 0.3\text{nH}$	5	100	7	12	15	20	22	6700	9600	0.30	0.19	180	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C3N9SRMST	3.9	$\pm 0.3\text{nH}$	5	100	7	12	15	20	22	6000	8600	0.30	0.20	170	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C4N7SRMST	4.7	$\pm 0.3\text{nH}$	5	100	7	12	15	19	21	5300	7600	0.40	0.25	150	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C5N6SRMST	5.6	$\pm 0.3\text{nH}$	5	100	7	12	15	19	21	4600	6600	0.40	0.25	150	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C6N8JRMST	6.8	$\pm 5\%$	5	100	7	11	14	18	20	3900	5600	0.48	0.30	150	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C8N2JRMST	8.2	$\pm 5\%$	5	100	7	11	14	18	19	3400	4900	0.55	0.34	150	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C10NJRMST	10	$\pm 5\%$	5	100	7	11	14	17	18	2900	4200	0.63	0.39	150	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C12NJRMST	12	$\pm 5\%$	5	100	7	11	14	17	18	2700	3800	0.70	0.45	100	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C15NJRMST	15	$\pm 5\%$	5	100	7	11	13	16	17	2300	3300	0.80	0.50	100	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C18NJRMST	18	$\pm 5\%$	5	100	7	11	13	16	17	2100	3000	0.90	0.57	100	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C22NJRMST	22	$\pm 5\%$	5	100	7	11	13	15	16	1800	2600	1.20	0.71	100	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C27NJRMST	27	$\pm 5\%$	4	100	6	10	12	14	15	1800	2600	1.80	1.11	50	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C33NJRMST	33	$\pm 5\%$	4	100	6	10	12	14	14	1700	2400	2.10	1.33	50	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C39NJRMST	39	$\pm 5\%$	4	100	6	10	12	13	12	1500	2100	2.40	1.51	50	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C47NJRMST	47	$\pm 5\%$	4	100	6	10	11	12	11	1300	1800	2.80	1.74	50	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C56NJRMST	56	$\pm 5\%$	4	100	6	10	11	11	10	1100	1600	3.00	1.85	50	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C68NJRMST	68	$\pm 5\%$	4	100	6	10	11	11	10	1100	1500	3.00	2.30	50	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201C82NJRMST	82	$\pm 5\%$	4	100	6	10	11	10	8	1000	1400	3.50	2.60	50	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
L0201CR10JRMST	100	$\pm 5\%$	4	100	6	9	10	9	6	900	1200	4.00	3.00	40	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000

# Multilayer Chip Inductors - High Frequency - L-RMS Series

## 0402 Case Size Multilayer Chip Inductors for High Frequency (L-RMS Series)

Ordering Code	Inductance (nH)	Inductance Tolerance	Q min.	Measuring Frequency (MHz)	Typical Q					Self-resonant Frequency (MHz)		DC Resistance ( $\Omega$ )		Maximum Rated Current (mA)		Thickness mm (inches)	Tape & Reel Packaging Quantity
					Frequency (MHz)					min.	typ.	max.	typ.	-55° to 125°C	-55° to 85°C		
					100	300	500	800	1000								
L0402C1N0SRMST	1.0	±0.3nH	8	100	11	25	34	43	52	10000	>13000	0.08	0.04	300	900	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C1N2SRMST	1.2	±0.3nH	8	100	11	25	35	44	52	10000	>13000	0.09	0.04	300	900	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C1N5SRMST	1.5	±0.3nH	8	100	11	24	33	44	48	6000	>13000	0.10	0.05	300	850	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C1N8SRMST	1.8	±0.3nH	8	100	11	23	30	36	42	6000	11000	0.12	0.06	300	700	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C2N0SRMST	2	±0.3nH	8	100	11	21	27	34	39	6000	10500	0.12	0.06	300	700	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C2N2SRMST	2.2	±0.3nH	8	100	10	18	25	31	36	6000	10000	0.13	0.07	300	700	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C2N4SRMST	2.4	±0.3nH	8	100	10	18	24	31	35	6000	9500	0.13	0.07	300	650	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C2N7SRMST	2.7	±0.3nH	8	100	10	18	24	31	34	6000	9000	0.13	0.08	300	650	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C3N0SRMST	3	±0.3nH	8	100	10	18	24	31	35	6000	8500	0.16	0.09	300	600	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C3N3SRMST	3.3	±0.3nH	8	100	10	18	24	31	35	6000	8000	0.16	0.10	300	550	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C3N6SRMST	3.6	±0.3nH	8	100	10	18	24	31	35	5000	7500	0.20	0.11	300	500	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C3N9SRMST	3.9	±0.3nH	8	100	10	18	24	31	35	4000	7000	0.21	0.12	300	500	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C4N3SRMST	4.3	±0.3nH	8	100	10	18	24	31	35	4000	6500	0.20	0.12	300	500	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C4N7SRMST	4.7	±0.3nH	8	100	10	18	24	31	34	4000	6000	0.21	0.12	300	500	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C5N1SRMST	5.1	±0.3nH	8	100	10	18	24	31	34	4000	5800	0.21	0.13	300	450	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C5N6SRMST	5.6	±0.3nH	8	100	10	18	24	30	35	4000	5700	0.23	0.15	300	430	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C6N2SRMST	6.2	±0.3nH	8	100	10	18	24	30	34	3900	5600	0.25	0.16	300	430	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C6N8JRMST	6.8	±5%	8	100	10	18	23	29	32	3900	5500	0.25	0.17	300	430	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C7N5JRMST	7.5	±5%	8	100	10	18	23	29	32	3700	5200	0.25	0.18	300	400	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C8N2JRMST	8.2	±5%	8	100	10	18	23	29	31	3600	4900	0.28	0.21	300	380	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C9N1JRMST	9.1	±5%	8	100	10	18	23	29	31	3400	4500	0.30	0.22	300	360	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C10N1JRMST	10	±5%	8	100	10	18	23	29	31	3200	4300	0.31	0.23	300	340	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C12N1JRMST	12	±5%	8	100	11	18	23	29	31	2700	3900	0.40	0.28	300	330	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C15N1JRMST	15	±5%	8	100	11	18	23	28	30	2300	3500	0.46	0.31	300	320	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C18N1JRMST	18	±5%	8	100	11	18	23	28	30	2100	3100	0.55	0.35	300	310	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C22N1JRMST	22	±5%	8	100	11	17	22	26	27	1900	2800	0.60	0.42	300	300	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C27N1JRMST	27	±5%	8	100	11	17	21	25	26	1600	2300	0.70	0.47	300	300	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C33N1JRMST	33	±5%	8	100	11	16	20	23	22	1300	1900	0.80	0.50	200	250	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C39N1JRMST	39	±5%	8	100	11	16	20	23	21	1200	1700	0.90	0.52	200	250	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C47N1JRMST	47	±5%	8	100	11	16	19	21	18	1000	1500	1.00	0.58	200	230	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C56N1JRMST	56	±5%	8	100	11	16	18	18	16	750	1300	1.00	0.61	200	220	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C68N1JRMST	68	±5%	8	100	11	15	17	18	11	750	1200	1.20	0.70	180	200	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402C82N1JRMST	82	±5%	8	100	10	14	16	15	6	600	1100	1.30	0.81	150	200	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402CR10JRMST	100	±5%	8	100	10	14	14	12	-	600	1000	1.50	0.94	150	200	0.50 ±0.05 (0.02 ±0.002)	10,000
L0402CR12JRMST	120	±5%	8	100	10	12	10	-	-	600	800	1.60	1.10	150	200	0.50 ±0.05 (0.02 ±0.002)	10,000

### 0603 Case Size Multilayer Chip Inductors for High Frequency (L-RMS Series)

Ordering Code	Inductance (nH)	Inductance Tolerance	Q min.	Measuring Frequency (MHz)	Typical Q					Self-resonant Frequency (MHz)		DC Resistance (Ω)		Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
					Frequency (MHz)					min.	typ.	max.	typ.			
					100	300	500	800	1000							
L0603C1N0SRMST	1.0	±0.3nH	8	100	14	30	40	70	90	10000	>13000	0.05	0.015	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C1N2SRMST	1.2	±0.3nH	8	100	14	30	40	70	90	10000	>13000	0.05	0.015	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C1N5SRMST	1.5	±0.3nH	8	100	14	26	34	47	50	6000	>13000	0.10	0.03	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C1N8SRMST	1.8	±0.3nH	8	100	10	18	24	30	34	6000	>13000	0.10	0.06	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C2N2SRMST	2.2	±0.3nH	8	100	12	22	29	37	40	6000	12000	0.10	0.06	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C2N7SRMST	2.7	±0.3nH	10	100	13	24	32	41	45	6000	11000	0.10	0.06	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C3N3SRMST	3.3	±0.3nH	10	100	14	25	33	42	47	6000	9000	0.12	0.06	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C3N9SRMST	3.9	±0.3nH	10	100	13	25	33	42	46	6000	8000	0.14	0.07	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C4N7SRMST	4.7	±0.3nH	10	100	13	25	33	42	47	4000	6500	0.16	0.08	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C5N6SRMST	5.6	±0.3nH	10	100	14	25	33	42	46	4000	5800	0.18	0.09	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C6N8JRMST	6.8	±5%	10	100	14	25	33	43	47	4000	5600	0.22	0.11	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C8N2JRMST	8.2	±5%	10	100	14	26	34	44	48	3500	5200	0.24	0.13	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C10NJRMST	10	±5%	12	100	14	26	34	43	47	3400	4600	0.26	0.16	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C12NJRMST	12	±5%	12	100	14	27	35	45	49	2600	4000	0.28	0.17	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C15NJRMST	15	±5%	12	100	15	28	37	46	51	2300	3400	0.32	0.20	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C18NJRMST	18	±5%	12	100	15	27	36	44	48	2000	3000	0.35	0.21	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C22NJRMST	22	±5%	12	100	16	28	36	44	47	1600	2900	0.40	0.25	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C27NJRMST	27	±5%	12	100	16	29	37	45	46	1400	2200	0.45	0.28	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C33NJRMST	33	±5%	12	100	17	31	40	46	47	1200	1800	0.55	0.35	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C39NJRMST	39	±5%	12	100	18	31	39	44	44	1100	1600	0.60	0.38	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C47NJRMST	47	±5%	12	100	17	28	34	35	34	900	1600	0.70	0.45	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C56NJRMST	56	±5%	12	100	17	28	34	34	31	900	1400	0.75	0.50	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C68NJRMST	68	±5%	12	100	18	29	34	30	22	700	1200	0.85	0.55	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C82NJRMST	82	±5%	12	100	18	28	33	27	-	600	1100	0.95	0.60	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR10JRMST	100	±5%	12	100	18	27	28	16	-	600	1000	1.00	0.65	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR12JRMST	120	±5%	8	50	16	24	23	-	-	500	800	1.20	0.68	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR15JRMST	150	±5%	8	50	13	19	16	-	-	500	800	1.20	0.73	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR18JRMST	180	±5%	8	50	13	18	12	-	-	400	700	1.30	0.85	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR22JRMST	220	±5%	8	50	12	16	-	-	-	400	600	1.50	0.95	300	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR27JRMST	270	±5%	8	50	14	15	-	-	-	400	550	1.90	1.34	150	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR33JRMST	330	±5%	8	50	14	-	-	-	-	350	480	2.10	1.53	150	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR39JRMST	390	±5%	8	50	13	-	-	-	-	350	410	2.30	1.72	150	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR47JRMST	470	±5%	8	50	13	-	-	-	-	300	360	2.60	2.04	150	0.8 ±0.15 (0.031 ±0.006)	4,000

# Multilayer Chip Inductors - High Frequency - L-RMS Series

## 0805 Case Size Multilayer Chip Inductors for High Frequency (L-RMS Series)

Ordering Code	Inductance (nH)	Inductance Tolerance	Q min.	Measuring Frequency (MHz)	Typical Q					Self-resonant Frequency (MHz)		DC Resistance ( $\Omega$ )		Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
					Frequency (MHz)					min.	typ.	max.	typ.			
					100	300	500	800	1000							
L0805C1N5SRMST	1.5	$\pm 0.3$ nH	10	100	21	39	57	61	68	4000	>6000	0.10	0.02	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C1N8SRMST	1.8	$\pm 0.3$ nH	10	100	18	35	49	55	59	4000	>6000	0.10	0.02	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C2N2SRMST	2.2	$\pm 0.3$ nH	10	100	18	33	46	53	58	4000	>6000	0.10	0.03	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C2N7SRMST	2.7	$\pm 0.3$ nH	12	100	19	36	50	56	60	4000	>6000	0.10	0.03	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C3N3SRMST	3.3	$\pm 0.3$ nH	12	100	16	29	40	47	51	4000	>6000	0.13	0.04	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C3N9SRMST	3.9	$\pm 0.3$ nH	12	100	18	33	46	54	60	4000	>6000	0.15	0.05	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C4N7SRMST	4.7	$\pm 0.3$ nH	12	100	18	34	46	55	60	3500	>6000	0.20	0.05	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C5N6SRMST	5.6	$\pm 0.3$ nH	15	100	20	38	51	60	66	3200	5400	0.23	0.05	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C6N8JRMST	6.8	$\pm 5\%$	15	100	20	39	52	63	69	2800	4200	0.25	0.06	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C8N2JRMST	8.2	$\pm 5\%$	15	100	21	40	54	63	70	2400	3700	0.28	0.07	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C10NJRMST	10	$\pm 5\%$	15	100	20	38	51	60	67	2100	3100	0.30	0.09	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C12NJRMST	12	$\pm 5\%$	15	100	21	39	52	60	67	1900	3000	0.35	0.10	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C15NJRMST	15	$\pm 5\%$	15	100	22	42	55	63	72	1600	2600	0.40	0.11	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C18NJRMST	18	$\pm 5\%$	15	100	24	44	57	63	72	1500	2300	0.45	0.13	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C22NJRMST	22	$\pm 5\%$	18	100	23	43	55	60	69	1400	2100	0.50	0.16	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C27NJRMST	27	$\pm 5\%$	18	100	23	42	53	58	68	1300	1800	0.55	0.17	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C33NJRMST	33	$\pm 5\%$	18	100	24	43	54	55	60	1200	1700	0.60	0.19	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C39NJRMST	39	$\pm 5\%$	18	100	23	41	50	47	47	1000	1400	0.65	0.25	300	0.85 $\pm 0.2$ (0.033 $\pm 0.008$ )	4,000
L0805C47NJRMST	47	$\pm 5\%$	18	100	23	41	49	43	41	900	1200	0.70	0.26	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805C56NJRMST	56	$\pm 5\%$	18	100	23	42	48	39	38	800	1100	0.75	0.28	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805C68NJRMST	68	$\pm 5\%$	18	100	25	42	45	30	-	700	900	0.80	0.33	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805C82NJRMST	82	$\pm 5\%$	18	100	24	41	41	-	-	600	800	0.90	0.37	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805CR10JRMST	100	$\pm 5\%$	18	100	23	37	37	-	-	600	800	0.90	0.40	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805CR12JRMST	120	$\pm 5\%$	13	50	22	33	29	-	-	500	700	0.95	0.43	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805CR15JRMST	150	$\pm 5\%$	13	50	22	34	26	-	-	500	700	1.00	0.46	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805CR18JRMST	180	$\pm 5\%$	13	50	23	34	20	-	-	400	600	1.10	0.50	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805CR22JRMST	220	$\pm 5\%$	12	50	20	23	-	-	-	350	550	1.20	0.75	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805CR27JRMST	270	$\pm 5\%$	12	50	20	19	-	-	-	300	480	1.30	0.85	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805CR33JRMST	330	$\pm 5\%$	12	50	22	15	-	-	-	250	400	1.40	0.90	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805CR39JRMST	390	$\pm 5\%$	10	50	17	12	-	-	-	250	400	1.30	0.85	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000
L0805CR47JRMST	470	$\pm 5\%$	10	50	17	-	-	-	-	200	350	1.50	0.95	300	1.0 $\pm 0.2$ -0.3 (0.039 $\pm 0.008$ / -0.012)	3,000

## Multilayer Chip Inductors - L-SMS/L-PMS/L-DMI Series

**Features:**

- Internal printed coil structure creates a closed magnetic circuit which acts as a magnetic shield eliminating crosstalk, thus permitting higher mounting densities.
- Multilayer block structure yields higher reliability
- The smallest mH inductors in the world (SMS 0402 Series)
- Low DC power dissipation due to Low Rdc with High Aspect Ratio internal conductor that stands on the Green Sheet and Printing technologies (DMI Series)

**Operating Temperature:**

- -40°C to +85°C

**Applications:**

- Any general circuit in portable equipment in which a compact size and high mounting densities are required (SMS Series)
- Separation of analog and digital circuits (PMS Series)
- Prevents interference between PLL and other digital circuits (PMS Series)
- DC/DC convertor for mobile equipment, cellular phones, DSC and DVC (PMS Series)

### Part Numbering Table



### Dimension Table in millimeters (inches)



EIA Case Size	Metric Dim. Code	L Length (inches)	W Width (inches)	T Thickness Maximum (inches)	E (inches)
0402	1005	1.0 ±0.05 (0.039 ±0.002)	0.50 ±0.05 (0.020 ±0.002)	0.50 ±0.05 (0.020 ±0.002)	0.25 ±0.10 (0.010 ±0.004)
0603	1608	1.6 ±0.15 (0.063 ±0.006)	0.8 ±0.15 (0.031 ±0.006)	0.8 ±0.15 (0.031 ±0.006)	0.3 ±0.2 (0.012 ±0.008)
0805	2125	2.0 +0.3/-0.1 (0.079 _0.012/-0.004)	1.25 ±0.2 (0.049 ±0.008)	0.85 ±0.2 1.25 ±0.2 (0.033 ±0.008) (0.049 ±0.008)	0.5 ±0.2 (0.02 ±0.008)
1008	2520	2.5 ± 0.2 (0.098 ± 0.008)	2.0 ± 0.2 (0.079 ± 0.008)	1.0 Max. (0.039)	0.5 ± 0.3 (0.02 ± 0.012)



## 0402 Case Size Multilayer Chip Inductors (L-SMS Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Q min.	Minimum Self Resonant Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Thickness mm (inches)	Tape & Reel Packaging Quantity
L0402CR12(_ )SMST	0.12	K±10%. M±20%	10	180	0.70	25	25	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR15(_ )SMST	0.15	K±10%. M±20%	10	165	0.90	25	25	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR18(_ )SMST	0.18	K±10%. M±20%	10	150	1.10	25	25	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR22(_ )SMST	0.22	K±10%. M±20%	10	135	1.30	25	25	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR27(_ )SMST	0.27	K±10%. M±20%	10	120	1.50	25	25	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR33(_ )SMST	0.33	K±10%. M±20%	10	105	1.70	25	25	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR39(_ )SMST	0.39	K±10%. M±20%	20	85	0.60	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR47(_ )SMST	0.47	K±10%. M±20%	20	80	0.70	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR56(_ )SMST	0.56	K±10%. M±20%	20	75	0.80	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR68(_ )SMST	0.68	K±10%. M±20%	20	70	0.90	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402CR82(_ )SMST	0.82	K±10%. M±20%	20	65	1.00	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402C1R0(_ )SMST	1.0	K±10%. M±20%	20	60	1.10	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402C1R2(_ )SMST	1.2	K±10%. M±20%	20	55	1.25	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402C1R5(_ )SMST	1.5	K±10%. M±20%	20	50	1.40	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402C1R8(_ )SMST	1.8	K±10%. M±20%	20	45	1.55	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000
L0402C2R2(_ )SMST	2.2	K±10%. M±20%	20	40	1.70	10	10	0.5 ±0.05 (0.02 ±0.002)	10,000

(\_) - Insert Inductance Tolerance Code (K or M)

### 0603 Case Size Multilayer Chip Inductors (L-SMS Series)

Ordering Code	Inductance (µH)	Inductance Tolerance	Q min.	Minimum Self Resonant Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Thickness mm (inches)	Tape & Reel Packaging Quantity
L0603C47NMSMST	0.047	±20%	10	260	0.30	50	50	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C68NMSMST	0.068	±20%	10	250	0.30	50	50	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C82NMSMST	0.082	±20%	10	245	0.30	50	50	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR10( )SMST	0.10	K±10%, M±20%	15	240	0.50	50	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR12( )SMST	0.12	K±10%, M±20%	15	205	0.50	50	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR15( )SMST	0.15	K±10%, M±20%	15	180	0.60	50	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR18( )SMST	0.18	K±10%, M±20%	15	165	0.60	50	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR22( )SMST	0.22	K±10%, M±20%	15	150	0.80	50	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR27( )SMST	0.27	K±10%, M±20%	15	136	0.80	50	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR33( )SMST	0.33	K±10%, M±20%	15	125	0.85	35	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR39( )SMST	0.39	K±10%, M±20%	15	110	1.00	35	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR47( )SMST	0.47	K±10%, M±20%	15	105	1.35	35	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR56( )SMST	0.56	K±10%, M±20%	15	95	1.55	35	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR68( )SMST	0.68	K±10%, M±20%	15	80	1.70	35	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603CR82( )SMST	0.82	K±10%, M±20%	15	75	2.10	35	25	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C1R0( )SMST	1.0	K±10%, M±20%	35	70	0.60	25	10	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C1R2( )SMST	1.2	K±10%, M±20%	35	60	0.80	25	10	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C1R5( )SMST	1.5	K±10%, M±20%	35	55	0.80	25	10	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C1R8( )SMST	1.8	K±10%, M±20%	35	50	0.95	25	10	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C2R2( )SMST	2.2	K±10%, M±20%	35	45	1.15	15	10	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C2R7( )SMST	2.7	K±10%, M±20%	35	40	1.35	15	10	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C3R3( )SMST	3.3	K±10%, M±20%	35	38	1.55	15	10	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C3R9( )SMST	3.9	K±10%, M±20%	35	36	1.70	15	10	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C4R7( )SMST	4.7	K±10%, M±20%	35	33	2.10	15	10	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C5R6( )SMST	5.6	K±10%, M±20%	35	22	1.55	5	4	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C6R8( )SMST	6.8	K±10%, M±20%	35	20	1.70	5	4	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C8R2( )SMST	8.2	K±10%, M±20%	35	18	2.10	5	4	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C100( )SMST	10	K±10%, M±20%	35	17	2.55	5	2	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C120( )SMST	12	K±10%, M±20%	35	15	2.75	5	2	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C150MSMST	15	±20%	20	14	1.70	1	1	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C180MSMST	18	±20%	20	13	1.85	1	1	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C220MSMST	22	±20%	20	11	2.10	1	1	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C270MSMST	27	±20%	20	10	2.75	1	1	0.8 ±0.15 (0.031 ±0.006)	4,000
L0603C330MSMST	33	±20%	20	9	2.95	1	1	0.8 ±0.15 (0.031 ±0.006)	4,000

( ) - Insert Inductance Tolerance Code (K or M)

## 0805 Case Size Multilayer Chip Inductors (L-SMS Series)

Ordering Code	Inductance (µH)	Inductance Tolerance	Q min.	Minimum Self Resonant Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Thickness mm (inches)	Tape & Reel Packaging Quantity
L0805C47NMSMST	0.047	±20%	15	320	0.20	300	50	0.85 ±0.2 (0.033 ±0.008)	2,000
L0805C68NMSMST	0.068	±20%	15	280	0.20	300	50	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805C82NMSMST	0.082	±20%	15	255	0.20	300	50	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR10( )SMST	0.10	K±10%, M±20%	20	235	0.30	250	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR12( )SMST	0.12	K±10%, M±20%	20	220	0.30	250	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR15( )SMST	0.15	K±10%, M±20%	20	200	0.40	250	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR18( )SMST	0.18	K±10%, M±20%	20	185	0.40	250	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR22( )SMST	0.22	K±10%, M±20%	20	170	0.50	250	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR27( )SMST	0.27	K±10%, M±20%	20	150	0.50	250	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR33( )SMST	0.33	K±10%, M±20%	20	145	0.55	250	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR39( )SMST	0.39	K±10%, M±20%	25	135	0.65	200	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR47( )SMST	0.47	K±10%, M±20%	25	125	0.65	200	25	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805CR56( )SMST	0.56	K±10%, M±20%	25	115	0.75	150	25	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805CR68( )SMST	0.68	K±10%, M±20%	25	105	0.80	150	25	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805CR82( )SMST	0.82	K±10%, M±20%	25	100	1.00	150	25	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C1R0( )SMST	1.0	K±10%, M±20%	45	75	0.40	50	10	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805C1R2( )SMST	1.2	K±10%, M±20%	45	65	0.50	50	10	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805C1R5( )SMST	1.5	K±10%, M±20%	45	60	0.50	50	10	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805C1R8( )SMST	1.8	K±10%, M±20%	45	55	0.60	50	10	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805C2R2( )SMST	2.2	K±10%, M±20%	45	50	0.65	30	10	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805C2R7( )SMST	2.7	K±10%, M±20%	45	45	0.75	30	10	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C3R3( )SMST	3.3	K±10%, M±20%	45	41	0.80	30	10	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C3R9( )SMST	3.9	K±10%, M±20%	45	38	0.90	30	10	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C4R7( )SMST	4.7	K±10%, M±20%	45	35	1.00	30	10	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C5R6( )SMST	5.6	K±10%, M±20%	50	32	0.90	15	4	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C6R8( )SMST	6.8	K±10%, M±20%	50	29	1.00	15	4	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C8R2( )SMST	8.2	K±10%, M±20%	50	26	1.10	15	4	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C100( )SMST	10	K±10%, M±20%	50	24	1.15	15	2	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C120( )SMST	12	K±10%, M±20%	50	22	1.25	15	2	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C150MSMST	15	±20%	30	19	0.80	5	1	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C180MSMST	18	±20%	30	18	0.90	5	1	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C220MSMST	22	±20%	30	16	1.10	5	1	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C270MSMST	27	±20%	30	14	1.15	5	1	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C330MSMST	33	±20%	30	13	1.25	5	0.4	1.25 ±0.2 (0.049 ±0.008)	2,000

( ) Insert Tolerance Code (K±10% or M±20%) listed to the right

### 0603 Case Size Multilayer Chip Inductors (L-PMS Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Inductance at 200mA (μH)	Maximum DC Resistance (Ω)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Thickness mm (inches)	Tape & Reel Packaging Quantity
L0603C4R7MPMST	4.7	±20%	20	0.45	60	4	0.80 ±0.15 (0.031 ±0.006)	4,000
L0603C100MPMST	10.0	±20%	20	0.85	50	2	0.80 ±0.15 (0.031 ±0.006)	4,000

### 0805 Case Size Multilayer Chip Inductors (L-PMS Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Q min.	Minimum Self Resonant Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Thickness mm (inches)	Tape & Reel Packaging Quantity
L0805CR10MPMST	0.10	±20%	15	235	0.16	500	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR15MPMST	0.15	±20%	15	200	0.20	500	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR22MPMST	0.22	±20%	15	170	0.23	400	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR33MPMST	0.33	±20%	15	145	0.28	400	25	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805CR47MPMST	0.47	±20%	15	125	0.32	400	25	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805CR68MPMST	0.68	±20%	15	105	0.45	300	25	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C1R0MPMST	1.0	±20%	20	75	0.26	220	10	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805C1R5MPMST	1.5	±20%	20	60	0.28	170	10	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805C2R2MPMST	2.2	±20%	20	50	0.35	150	10	0.85 ±0.2 (0.033 ±0.008)	4,000
L0805C3R3MPMST	3.3	±20%	20	41	0.43	130	10	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C4R7MPMST	4.7	±20%	20	35	0.48	80	10	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C6R8MPMST	6.8	±20%	20	29	0.52	70	4	1.25 ±0.2 (0.049 ±0.008)	2,000
L0805C100MPMST	10.0	±20%	20	24	0.65	60	2	1.25 ±0.2 (0.049 ±0.008)	2,000

### 1008 Case Size Multilayer Chip Inductors (L-DMI Series)

Ordering Code	Inductance (μH)	Inductance Tolerance	Minimum Inductance at 200mA (μH)	Maximum DC Resistance (Ω)	Maximum Rated Current (mA)	Measuring Frequency (MHz)	Thickness mm (inches)	Tape & Reel Packaging Quantity
L1008C2R2MDMIT	2.2	±20%	1.5	0.09	1300	1	1.0 max (0.039 max)	4,000
L1008C3R3MDMIT	3.3	±20%	2.0	0.10	1200	1	1.0 max (0.039 max)	4,000
L1008C4R7MDMIT	4.7	±20%	2.5	0.15	1100	1	1.0 max (0.039 max)	4,000

## Low Profile SMD Inductors (L-DWD Series)

### Features:

- Small and low profile inductor
- Corresponds to high current
- Simple and original magnetic shield structure
- Structure strong against shock-proof

### Applications:

- For small DC/DC converter; cellular phones, HDD, HVC, DSC, and PDA LCD display

### Operating Temperature:

- -25°C to +120°C (including self-generated heat)

### Part Numbering Table



### Dimension Table in millimeters (inches)



Metric Dim. Code	L Length (inches)	W Width (inches)	T Thickness Maximum (inches)	E (inches)	F
3010	3.0 ±0.1 (0.118 ±0.004)	3.0 ±0.1 (0.118 ±0.004)	1.0 max. (0.039 max.)	0.9 ±0.2 (0.035 ±0.008)	1.9 ±0.2 (0.075 ±0.008)
4010	4.0 ±0.2 (0.157 ±0.008)	4.0 ±0.2 (0.157 ±0.008)	1.0 max. (0.039 max.)	1.1 ±0.2 (0.043 ±0.008)	2.5 ±0.2 (0.098 ±0.008)
4012	4.0 ±0.2 (0.157 ±0.008)	4.0 ±0.2 (0.157 ±0.008)	1.2 max. (0.047 max.)	1.1 ±0.2 (0.043 ±0.008)	2.5 ±0.2 (0.098 ±0.008)
4018	4.0 ±0.2 (0.157 ±0.008)	4.0 ±0.2 (0.157 ±0.008)	1.8 max. (0.071 max.)	1.1 ±0.2 (0.043 ±0.008)	2.5 ±0.2 (0.098 ±0.008)
8040	8.0 ±0.2 (0.315 ±0.008)	8.0 ±0.2 (0.315 ±0.008)	4.2 max (0.165 max)	1.6 ±0.3 (0.063 ±0.012)	5.6 ±0.3 (0.220 ±0.012)

### Dimensions 3.0mm x 3.0mm (L-DWD3010 Type, 1.0mm Max. Height)

Ordering Code	Inductance (μH)	Inductance Tolerance	Measuring Frequency (KHz)	Minimum Self-resonant Frequency (MHz)	Maximum DC Resistance (Ω) ±30%	Maximum Rated Current (mA)	Maximum Height (mm)	Tape & Reel Packaging Quantity
L3010C1R0NDWDT	1.0	±30%	100	126	0.065	1300	1.0	2,000
L3010C1R5NDWDT	1.5	±30%	100	98	0.08	1200	1.0	2,000
L3010C2R2MDWDT	2.2	±20%	100	82	0.095	1100	1.0	2,000
L3010C3R3MDWDT	3.3	±20%	100	63	0.14	870	1.0	2,000
L3010C4R7MDWDT	4.7	±20%	100	56	0.19	750	1.0	2,000
L3010C6R8MDWDT	6.8	±20%	100	46	0.30	610	1.0	2,000
L3010C100MDWDT	10	±20%	100	35	0.45	500	1.0	2,000
L3010C150MDWDT	15	±20%	100	30	0.74	400	1.0	2,000
L3010C220MDWDT	22	±20%	100	25	1.03	350	1.0	2,000
L3010C330MDWDT	33	±20%	100	20	1.55	260	1.0	2,000
L3010C470MDWDT	47	±20%	100	17	2.05	220	1.0	2,000

### Dimensions 4.0mm x 4.0mm (L-DWD4010 Type, 1.0mm Max. Height)

Ordering code	Inductance (μH)	Inductance Tolerance	Measuring Frequency (KHz)	Minimum Self-resonant Frequency (MHz)	Maximum DC Resistance (Ω) ±30%	Maximum Rated Current (mA)	Maximum Height (mm)	Tape & Reel Packaging Quantity
L4010C1R0NDWDT	1.0	±30%	100	116	0.10	1050	1.0	5,000
L4010C2R2NDWDT	2.2	±30%	100	73	0.15	890	1.0	5,000
L4010C3R3MDWDT	3.3	±20%	100	58	0.18	820	1.0	5,000
L4010C4R7MDWDT	4.7	±20%	100	47	0.21	750	1.0	5,000
L4010C6R8MDWDT	6.8	±20%	100	38	0.30	620	1.0	5,000
L4010C100MDWDT	10	±20%	100	31	0.38	560	1.0	5,000
L4010C150MDWDT	15	±20%	100	24	0.51	470	1.0	5,000
L4010C220MDWDT	22	±20%	100	19	0.87	360	1.0	5,000
L4010C330MDWDT	33	±20%	100	15	1.54	280	1.0	5,000
L4010C470MDWDT	47	±20%	100	13	1.81	240	1.0	5,000

### Dimensions 4.0mm x 4.0mm (L-DWD4012 Type, 1.2mm Max. Height)

Ordering Code	Inductance (µH)	Inductance Tolerance	Measuring Frequency (KHz)	Minimum Self-resonant Frequency (MHz)	Maximum DC Resistance (Ω) ±30%	Maximum Rated Current (mA)	Maximum Height (mm)	Tape & Reel Packaging Quantity
L4012C1R0NDWDT	1.0	±30%	100	131	0.06	1500	1.2	4,500
L4012C2R2MDWDT	2.2	±20%	100	66	0.09	1200	1.2	4,500
L4012C3R3MDWDT	3.3	±20%	100	50	0.13	980	1.2	4,500
L4012C4R7MDWDT	4.7	±20%	100	45	0.14	960	1.2	4,500
L4012C6R8MDWDT	6.8	±20%	100	35	0.18	840	1.2	4,500
L4012C100MDWDT	10	±20%	100	28	0.24	740	1.2	4,500
L4012C150MDWDT	15	±20%	100	23	0.40	560	1.2	4,500
L4012C220MDWDT	22	±20%	100	18	0.48	510	1.2	4,500
L4012C330MDWDT	33	±20%	100	15	0.81	400	1.2	4,500
L4012C470MDWDT	47	±20%	100	12	1.00	350	1.2	4,500

### Dimensions 4.0mm x 4.0mm (L-DWD4018 Type, 1.8mm Max. Height)

Ordering Code	Inductance (µH)	Inductance Tolerance	Measuring Frequency (KHz)	Minimum Self-resonant Frequency (MHz)	Maximum DC Resistance (Ω) ±30%	Maximum Rated Current (mA)	Maximum Height (mm)	Tape & Reel Packaging Quantity
L4018C1R0NDWDT	1.0	±30%	100	80	0.03	1830	1.8	3,500
L4018C2R2MDWDT	2.2	±20%	100	52	0.06	1440	1.8	3,500
L4018C3R3MDWDT	3.3	±20%	100	44	0.07	1230	1.8	3,500
L4018C4R7MDWDT	4.7	±20%	100	34	0.09	1200	1.8	3,500
L4018C6R8MDWDT	6.8	±20%	100	29	0.11	1060	1.8	3,500
L4018C100MDWDT	10	±20%	100	24	0.18	840	1.8	3,500
L4018C150MDWDT	15	±20%	100	19	0.25	650	1.8	3,500
L4018C220MDWDT	22	±20%	100	16	0.36	590	1.8	3,500
L4018C330MDWDT	33	±20%	100	12	0.53	490	1.8	3,500
L4018C470MDWDT	47	±20%	100	10	0.65	420	1.8	3,500
L4018C680MDWDT	68	±20%	100	8.3	1.00	320	1.8	3,500
L4018C101MDWDT	100	±20%	100	6.5	1.50	280	1.8	3,500
L4018C221MDWDT	220	±20%	100	4	4.00	170	1.8	3,500

### Dimensions 8.0mm x 8.0mm (L-DWD8040 Type, 4.2mm Max. Height)

Ordering Code	Inductance (µH)	Inductance Tolerance	Measuring Frequency (KHz)	Minimum Self-resonant Frequency (MHz)	Maximum DC Resistance (Ω) ±30%	Maximum Rated Current (mA)	Maximum Height (mm)	Tape & Reel Packaging Quantity
L8040C0R9NDWDT	0.9	±30%	100	85	0.006	7800	4.0	1,000
L8040C1R4NDWDT	1.4	±30%	100	63	0.007	7000	4.0	1,000
L8040C2R0NDWDT	2.0	±30%	100	50	0.009	6300	4.0	1,000
L8040C3R6NDWDT	3.6	±30%	100	34	0.015	4900	4.0	1,000
L8040C4R7NDWDT	4.7	±30%	100	30	0.018	4100	4.0	1,000
L8040C6R8NDWDT	6.8	±30%	100	24	0.025	3700	4.0	1,000
L8040C100MDWDT	10	±20%	100	22	0.034	3100	4.2	1,000
L8040C150MDWDT	15	±20%	100	16	0.050	2400	4.2	1,000
L8040C220MDWDT	22	±20%	100	13	0.066	2200	4.2	1,000
L8040C330MDWDT	33	±20%	100	12	0.100	1700	4.2	1,000
L8040C470MDWDT	47	±20%	100	8	0.150	1400	4.2	1,000
L8040C680MDWDT	68	±20%	100	7	0.230	1100	4.2	1,000
L8040C101MDWDT	100	±20%	100	6	0.290	1000	4.2	1,000

## High Current Ferrite Chip Beads - Z-PWS/Z-PWZ Series

### Features:

- Power supply units:
  - Large withstand voltage (allowable current up to 6A)
  - Resistant to high energy
  - High reliability
- There are several variations of the standard (Z-PWS) type (10th digit in part number)
  - "A" for broadband
  - "B" for upper MHz range applications
  - "G" for GHz range applications
- The Z-PWZ type is optimal for circuit designs which require impedance and large currents to combat radiated noise on power lines, etc.

### Applications:

- Combats power line radiated and conducted noise
- Provides waveform correction of digital signals and high frequency noise countermeasures in various types of digital equipment
- Automotive
- Computer peripherals
- Differential transmission line on USB and similar products
- Mobile devices which require lower power consumption

### Operating Temperature:

- -40°C to +125°C (includes self-generated heat)

## Part Numbering Table



## Dimension Table in millimeters (inches)



Characteristic Code	EIA Case Size	Metric Dim. Code	L Length (inches)	W Width (inches)	T Thickness Maximum (inches)	E (inches)
Z-PWS	0603	1608	1.6 ±0.2 (0.063 ±0.008)	0.8 ±0.2 (0.031 ±0.008)	0.8 ±0.2 (0.031 ±0.008)	0.3 ±0.2 (0.012 ±0.008)
	0805	2125	2.0 ±0.2 (0.079 ±0.008)	1.25 ±0.2 (0.049 ±0.008)	0.85 ±0.2 (0.02 ±0.002)	0.5 ±0.3 (0.020 ±0.012)
	1206	3216	3.2 ±0.3 (0.126 ±0.012)	1.6 ±0.2 (0.063 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	0.5 ±0.3 (0.020 ±0.012)
	1806	4516	4.5 ±0.3 (0.177 ±0.012)	1.6 ±0.2 (0.063 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	0.5 ±0.3 (0.020 ±0.012)
Z-PWZ	0603	1608	1.6 ±0.1 (0.063 ±0.004)	0.8 ±0.1 (0.031 ±0.004)	0.8 ±0.1 (0.031 ±0.004)	0.3 ±0.15 (0.012 ±0.006)
	0805	2012	2.0 ±0.2 (0.079 ±0.008)	1.25 ±0.2 (0.049 ±0.008)	0.85 ±0.2 (0.02 ±0.002)	0.5 ±0.3 (0.020 ±0.012)
	0806	2016	2.0 ±0.2 (0.079 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	0.5 ±0.3 (0.020 ±0.012)
	1206	3216	3.2 ±0.3 (0.126 ±0.012)	1.6 ±0.2 (0.063 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	0.5 ±0.3 (0.020 ±0.012)
	1210	3225	3.2 ±0.3 (0.126 ±0.012)	2.5 ±0.3 (0.098 ±0.012)	2.5 ±0.3 (0.098 ±0.012)	0.5 ±0.3 (0.020 ±0.012)
	1806	4516	4.5 ±0.3 (0.177 ±0.012)	1.6 ±0.2 (0.063 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	0.5 ±0.3 (0.020 ±0.012)
	1810	4525	4.5 ±0.4 (0.177 ±0.016)	2.5 ±0.3 (0.098 ±0.012)	2.5 ±0.3 (0.098 ±0.012)	0.9 ±0.6 (0.035 ±0.024)
	1812	4532	4.5 ±0.4 (0.177 ±0.016)	3.2 ±0.3 (0.126 ±0.012)	3.2 ±0.3 (0.126 ±0.012)	0.9 ±0.6 (0.035 ±0.024)

### 0603 Case Size High Current Ferrite Chip Beads (Z-PWS Series)

Ordering Code	Impedance (Ω)	Measuring Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (A)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z0603C230BPWST	23 ±30%	100	0.007	4	0.8 ±0.2 (0.031 ±0.008)	4,000
Z0603C280APWST	28 ±30%	100	0.007	4	0.8 ±0.2 (0.031 ±0.008)	4,000

### 0805 Case Size High Current Ferrite Chip Beads (Z-PWS Series)

Ordering Code	Impedance (Ω)	Measuring Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (A)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z0805C8R0GPWST	8 ±30%	100	0.01	2	0.85 ±0.2 (0.033 ±0.008)	4,000
Z0805C210BPWST	21 ±30%	100	0.004	6	0.85 ±0.2 (0.033 ±0.008)	4,000
Z0805C250APWST	25 ±30%	100	0.004	6	0.85 ±0.2 (0.033 ±0.008)	4,000
Z0805C330BPWST	33 ±25%	100	0.008	4	0.85 ±0.2 (0.033 ±0.008)	4,000
Z0805C420APWST	42 ±25%	100	0.008	4	0.85 ±0.2 (0.033 ±0.008)	4,000

### 1206 Case Size High Current Ferrite Chip Beads (Z-PWS Series)

Ordering Code	Impedance (Ω)	Measuring Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (A)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z1206C380BPWST	38 ±30%	100	0.005	6	1.1 ±0.2 (0.043 ±0.008)	2,000
Z1206C480APWST	48 ±30%	100	0.005	6	1.1 ±0.2 (0.043 ±0.008)	2,000
Z1206C600BPWST	60 ±25%	100	0.01	4	1.1 ±0.2 (0.043 ±0.008)	2,000
Z1206C800APWST	80 ±25%	100	0.01	4	1.1 ±0.2 (0.043 ±0.008)	2,000

### 1806 Case Size High Current Ferrite Chip Beads (Z-PWS Series)

Ordering Code	Impedance (Ω)	Measuring Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (A)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z1806C560BPWST	56 ±30%	100	0.007	6	1.1 ±0.2 (0.043 ±0.008)	2,000
Z1806C900BPWST	90 ±25%	100	0.014	4	1.1 ±0.2 (0.043 ±0.008)	2,000
Z1806C720APWST	72 ±30%	100	0.007	6	1.1 ±0.2 (0.043 ±0.008)	2,000
Z1806C111APWST	110 ±25%	100	0.014	4	1.1 ±0.2 (0.043 ±0.008)	2,000



# High Current Ferrite Chip Beads - Z-PWS, Z-PWZ Series

## 0603-1812 Case Size High Impedance Type Ferrite Chip Beads (Z-PWZ Series)

Ordering Code	EIA Case Size	Impedance (Ω)	Measuring Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (A)	Thickness mm (inches)	Tape & Reel Packaging Quantity
<b>0603 Case Size High Impedance Ferrite Chip Beads (Z-PWZ Series)</b>							
Z0603C470BPWZT	0603	47 ±25%	100	0.02	3.5	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C600BPWZT	0603	60 ±25%	100	0.025	3	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C101BPWZT	0603	100 ±25%	100	0.035	2	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C151BPWZT	0603	150 ±25%	100	0.05	2	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C221BPWZT	0603	220 ±25%	100	0.07	1.5	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C331BPWZT	0603	330 ±25%	100	0.13	0.9	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C471BPWZT	0603	470 ±25%	100	0.15	0.7	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C601BPWZT	0603	600 ±25%	100	0.17	0.7	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C102BPWZT	0603	1000 ±25%	100	0.35	0.5	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C300GPWZT	0603	30 ±25%	100	0.028	2.5	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C600GPWZT	0603	60 ±25%	100	0.045	1.8	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C121GPWZT	0603	120 ±25%	100	0.13	0.9	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C221GPWZT	0603	220 ±25%	100	0.17	0.7	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C331GPWZT	0603	330 ± 5%	100	0.21	0.6	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C471GPWZT	0603	470 ±25%	100	0.35	0.5	0.8 ±0.1 (0.031 ±0.004)	4,000
Z0603C601GPWZT	0603	600 ±25%	100	0.45	0.4	0.8 ±0.1 (0.031 ±0.004)	4,000
<b>0805 Case Size High Impedance Ferrite Chip Beads (Z-PWZ Series)</b>							
Z0805C800BPWZT	0805	80 ±25%	100	0.025	2.7	0.85 ±0.2 (0.033 ±0.008)	4,000
Z0805C121BPWZT	0805	120 ±25%	100	0.032	2.5	0.85 ±0.2 (0.033 ±0.008)	4,000
<b>0806 Case Size High Impedance Ferrite Chip Beads (Z-PWZ Series)</b>							
Z0806C221BPWZT	0805	220 ±25%	100	0.06	2	0.85 ±0.2 (0.033 ±0.008)	4,000
Z0806C331BPWZT	0805	330 ±25%	100	0.08	1.8	0.85 ±0.2 (0.033 ±0.008)	4,000
Z0806C251BPWZT	0806	250 ±30%	100	0.05	2	1.6 ±0.2 (0.063 ±0.008)	2,000
<b>1206 Case Size High Impedance Ferrite Chip Beads (Z-PWZ Series)</b>							
Z1206C501BPWZT	1206	500 ±30%	100	0.07	2	1.6 ±0.2 (0.063 ±0.008)	2,000
<b>1210 Case Size High Impedance Ferrite Chip Beads (Z-PWZ Series)</b>							
Z1210C601BPWZT	1210	600 ±30%	100	0.042	3	2.5 ±0.3 (0.098 ±0.012)	1,000
Z1210C102BPWZT	1210	1000 ±30%	100	0.1	2	2.5 ±0.3 (0.098 ±0.012)	1,000
Z1210C202BPWZT	1210	2000 ±30%	100	0.13	1.2	2.5 ±0.3 (0.098 ±0.012)	1,000
<b>1806 Case Size High Impedance Ferrite Chip Beads (Z-PWZ Series)</b>							
Z1806C851BPWZT	1806	850 ±30%	100	0.1	1.5	1.6 ±0.2 (0.063 ±0.008)	1,000
<b>1810 Case Size High Impedance Ferrite Chip Beads (Z-PWZ Series)</b>							
Z1810C102BPWZT	1810	1000 ±30%	100	0.06	3	2.5 ±0.3 (0.098 ±0.012)	1,000
Z1810C162BPWZT	1810	1600 ±30%	100	0.13	2	2.5 ±0.3 (0.098 ±0.012)	1,000
<b>1812 Case Size High Impedance Ferrite Chip Beads (Z-PWZ Series)</b>							
Z1812C681BPWZT	1812	680 ±25%	100	0.028	4	3.2 ±0.3 (0.126 ±0.012)	2,000
Z1812C132BPWZT	1812	1300 ±25%	100	0.06	3	3.2 ±0.3 (0.126 ±0.012)	2,000
Z1812C202BPWZT	1812	2000 ±25%	100	0.13	1.3	3.2 ±0.3 (0.126 ±0.012)	2,000

## Multilayer Ferrite Chip Beads - Z-SMS/Z-PMS Series

### Z-SMS Features:

- Internal silver printed layer creates a closed circuit which acts as a magnetic shield to minimize heat generation and crosstalk
- No need for grounding provides greater circuit design flexibility
- Several material types and a broad range of impedance values provide noise countermeasures for various applications (10th digit in part number)
- “A” Suppresses the XL component. Helps stop the reduction of the wave-form integrity (digital wave-form overshoot, etc)
- “B” Increases the Z characteristics sharply above 20MHz and is applicable for radiated noise in the 100MHz-300MHz range. Especially effective on video signal lines.
- “C” Designed as a noise countermeasure for 200MHz-500MHz range where the rise of the Z component is in the high frequency area.
- “D” Intended for noise suppression around 200MHz. Effectively increase attenuation
- “E” The best material in the Z-SMS Series to suppress the XL component and stop the reduction of the wave-form integrity while maintaining attenuation in the high frequency area.
- “F” Reduced DC resistance version for noise countermeasures around LSI power supplies

### Z-SMS Applications:

- High frequency noise countermeasure in personal computers, digital cameras and other information system products. For use on digital product clock lines and general signal lines.
- Radiated noise suppression in computer or printer interfaces harness connectors.
- Noise suppression in video and other AV products
- Prevents interference between circuits in cellular phones (PHS, PDC, etc)
- Due to the closed internal circuit which acts as a magnetic shield, the “F” material is extremely effective as a noise filter on LSI power supplies where downsizing of components is needed.

### Z-PMS Applications:

- High frequency noise countermeasures on the DC power supply line in personal computers and other information system products
- Noise suppression in USB and IEEE1294 interface
- Prevents interference between circuits in mobile systems (PDC, PHS, PDA)

### Operating Temperature:

- Z-SMS: -55°C to +125°C (includes self-generated heat)
- Z-PMS: -55°C to +85°C (includes self-generated heat)

### Z-PMS Features:

- Low Rdc values reduce power dissipation and extend battery life
- No need for grounding provides greater circuit design flexibility

## Part Numbering Table



## Dimension Table in millimeters (inches)



EIA Case Size	Metric Dim. Code	L Length (inches)	W Width (inches)	T Thickness Maximum (inches)	E (inches)
0201	0603	0.6 ±0.03 (0.2 ±0.001)	0.30 ±0.03 (0.012 ±0.001)	0.30 ±0.03 (0.012 ±0.001)	0.15 ±0.05 (0.006 ±0.002)
0402	1005	1.00 ±0.05 (0.039 ±0.002)	0.50 ±0.05 (0.020 ±0.002)	0.50 ±0.05 (0.020 ±0.002)	0.25 ±0.10 (0.010 ±0.004)
0603	1608	1.6 ±0.15 (0.063 ±0.006)	0.8 ±0.15 (0.031 ±0.006)	0.8 ±0.15 (0.031 ±0.006)	0.3 ±0.2 (0.012 ±0.008)
0805	2125	2.0 +0.3/-0.1 (0.079 +0.012/-0.004)	1.25 ±0.2 (0.049 ±0.008)	0.85 ±0.2 (0.033 ±0.008)	0.5 ±0.3 (0.020 ±0.012)

# Multilayer Ferrite Chip Beads - Z-SMS, Z-PMS Series

## 0201 Multilayer Ferrite Chip Beads Standard Type (Z-SMS Series)

Ordering Code	Impedance ( $\Omega$ ) $\pm 25\%$	Measuring Frequency (MHz)	Maximum DC Resistance ( $\Omega$ )	Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z0201C220ASMST	22	100	0.10	500	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C330ASMST	33	100	0.20	350	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C800ASMST	80	100	0.40	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C121ASMST	120	100	0.50	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C241ASMST	240	100	0.80	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C600BSMST	60	100	0.40	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C121BSMST	120	100	0.50	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C241BSMST	240	100	0.80	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C100CSMST	10	100	0.40	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C220CSMST	22	100	0.50	200	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C330CSMST	33	100	0.80	150	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000
Z0201C470CSMST	47	100	1.00	150	0.30 $\pm$ 0.03 (0.012 $\pm$ 0.001)	15,000

## 0402 Multilayer Ferrite Chip Beads Standard Type (Z-SMS Series)

Ordering Code	Impedance ( $\Omega$ ) $\pm 25\%$	Measuring Frequency (MHz)	Maximum DC Resistance ( $\Omega$ )	Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z0402C680ESMST	68	100	0.17	500	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C121ESMST	120	100	0.24	450	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C241ESMST	240	100	0.31	400	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C431ESMST	430	100	0.50	350	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C601ESMST	600	100	0.60	300	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C100ASMST	10	100	0.05	1000	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C330ASMST	33	100	0.10	700	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C680ASMST	68	100	0.13	600	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C121ASMST	120	100	0.23	500	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C241ASMST	240	100	0.33	400	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C601ASMST	600	100	0.58	300	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C121BSMST	120	100	0.25	300	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C241BSMST	240	100	0.36	300	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C471BSMST	470	100	0.56	250	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C601BSMST	600	100	0.59	250	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C102BSMST	1000	100	0.80	150	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C100CSMST	10	100	0.15	500	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C220CSMST	22	100	0.20	400	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C330CSMST	33	100	0.30	400	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C470CSMST	47	100	0.35	350	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C680CSMST	68	100	0.31	400	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C121CSMST	120	100	0.45	350	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C181CSMST	180	100	0.53	300	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000
Z0402C241CSMST	240	100	0.70	250	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000

## 0402 Multilayer Ferrite Chip Beads For Power Lines (Z-PMS Series)

Ordering Code	Impedance ( $\Omega$ ) $\pm 25\%$	Measuring Frequency (MHz)	Maximum DC Resistance ( $\Omega$ )	Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z0402C121APMST	120	100	0.14	1000	0.50 $\pm$ 0.05 (0.020 $\pm$ 0.002)	10,000



### 0603 Multilayer Ferrite Chip Beads Standard Type (Z-SMS Series)

Ordering Code	Impedance (Ω) ±25%	Measuring Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z0603C121ESMST	120	100	0.15	600	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C241ESMST	240	100	0.25	450	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C431ESMST	430	100	0.30	400	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C601ESMST	600	100	0.40	300	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C220ASMST	22	100	0.05	1500	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C330ASMST	33	100	0.08	1200	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C470ASMST	47	100	0.10	900	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C600ASMST	60	100	0.10	800	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C800ASMST	80	100	0.10	600	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C121ASMST	120	100	0.18	500	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C241ASMST	240	100	0.25	400	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C601ASMST	600	100	0.45	350	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C102ASMST	1000	100	0.60	300	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C121BSMST	120	100	0.20	350	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C241BSMST	240	100	0.35	300	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C471BSMST	470	100	0.45	250	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C601BSMST	600	100	0.60	250	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C102BSMST	1000	100	0.70	200	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C300CSMST	30	100	0.20	500	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C470CSMST	47	100	0.30	400	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C560CSMST	56	100	0.30	400	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C680CSMST	68	100	0.35	300	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C121CSMST	120	100	0.50	300	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C181CSMST	180	100	0.65	250	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C241CSMST	240	100	0.80	250	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C331CSMST	330	100	0.85	200	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C431CSMST	430	100	0.85	200	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C511CSMST	510	100	0.90	200	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C681CSMST	680	100	1.00	150	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C751DSMST	750	100	0.60	300	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C152DSMST	1500	100	0.75	250	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C182DSMST	1800	100	0.85	200	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C252DSMST	2500	100	1.10	200	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C431FSMST	430	100	0.25 ±30%	400	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C601FSMST	600	100	0.27 ±30%	350	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C102FSMST	1000	100	0.35 ±30%	300	0.80 ±0.15 (0.031 ±0.006)	4,000

### 0603 Multilayer Ferrite Chip Beads For Power Lines (Z-PMS Series)

Ordering Code	Impedance (Ω) ±25%	Measuring Frequency (MHz)	Maximum DC Resistance (Ω)	Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z0603C330APMST	33	100	0.025	3000	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C600APMST	60	100	0.040	2500	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C101APMST	100	100	0.050	1700	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C121APMST	120	100	0.035	2700	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C181APMST	180	100	0.075	1500	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C271APMST	270	100	0.110	1200	0.80 ±0.15 (0.031 ±0.006)	4,000
Z0603C391APMST	390	100	0.140	1000	0.80 ±0.15 (0.031 ±0.006)	4,000

# Multilayer Ferrite Chip Beads - Z-SMS, Z-PMS Series

## 0805 Multilayer Ferrite Chip Beads Standard Type (Z-SMS Series)

Ordering Code	Impedance ( $\Omega$ ) $\pm 25\%$	Measuring Frequency (MHz)	Maximum DC Resistance ( $\Omega$ )	Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z0805C150ASMST	15	100	0.05	1200	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C220ASMST	22	100	0.05	1200	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C330ASMST	33	100	0.05	1200	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C470ASMST	47	100	0.05	1000	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C750ASMST	75	100	0.10	1000	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C101ASMST	100	100	0.10	900	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C121ASMST	120	100	0.15	800	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C241ASMST	240	100	0.20	600	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C431ASMST	430	100	0.25	500	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C601ASMST	600	100	0.30	500	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C102ASMST	1000	100	0.40	300	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C121BSMST	120	100	0.15	800	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C241BSMST	240	100	0.20	600	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C471BSMST	470	100	0.25	500	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C601BSMST	600	100	0.25	500	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C102BSMST	1000	100	0.35	400	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C560CSMST	56	100	0.20	600	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C121CSMST	120	100	0.30	400	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C241CSMST	240	100	0.35	300	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C751DSMST	750	100	0.30	400	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C152DSMST	1500	100	0.35	400	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C182DSMST	1800	100	0.45	300	1.25 $\pm$ 0.2 (0.049 $\pm$ 0.008)	2,000
Z0805C252DSMST	2500	100	0.75	200	1.25 $\pm$ 0.2 (0.049 $\pm$ 0.008)	2,000

## 0805 Multilayer Ferrite Chip Beads For Power Lines (Z-PMS Series)

Ordering Code	Impedance ( $\Omega$ ) $\pm 25\%$	Measuring Frequency (MHz)	Maximum DC Resistance ( $\Omega$ )	Maximum Rated Current (mA)	Thickness mm (inches)	Tape & Reel Packaging Quantity
Z0805C330APMST	33	100	0.020	4000	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C600APMST	60	100	0.025	3000	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C101APMST	100	100	0.040	2500	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000
Z0805C221APMST	220	100	0.050	2000	0.85 $\pm$ 0.2 (0.033 $\pm$ 0.008)	4,000



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**World Sales Headquarters**  
KEMET Electronics Corporation  
P.O. Box 5928  
Greenville, SC 29606  
Phone: 864-963-6300

**Europe**  
KEMET Electronics S.A.  
15bis chemin des Mines  
1202 Geneva, Switzerland  
Phone: 41-22-715-0100

**Asia**  
KEMET Electronics Marketing PTE Ltd.  
73 Bukit Timah Road  
#05-01 Rex House  
Singapore, 229832, Singapore  
Phone: 65-6586-1900

KEMET Electronics Asia Ltd.  
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