

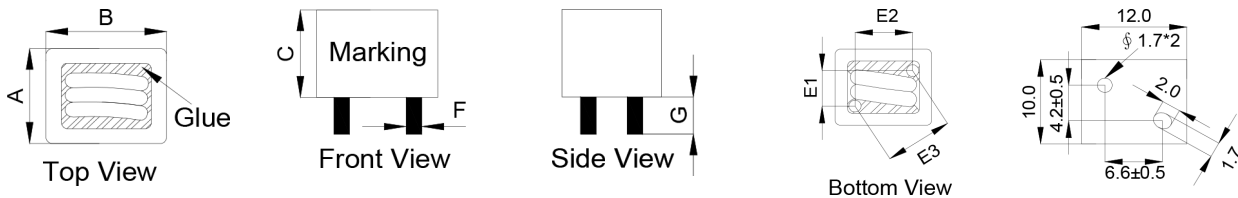
Unshielded Power Inductors - Radial Leaded

multicomp PRO

**RoHS
Compliant**



Configurations & Dimensions



Part Number	A	B	C	E1	E2	E3	F	G		
MP005775	9.7	11.7	8.7	4.2	6.6	7.8	Φ1.4	3.5		
MP005776	9	11	8.3							
MP005777	9.7	11.7	8.5							
MP005778			8.7						4.7	6.9
MP005779	9	11	8.3						4.2	6.6

Electrical Characteristics

Part Number	L (nH) ± Tol	DCR (mΩ)	Isat (A)	Irms (A)	Op. Temp
MP005775	360 ±15%	0.65 ±7%	50	43	-55°C to +130°C
MP005776	300 ±15%	0.7 ±8%		40	
MP005777		0.65 ±7%		43	
MP005778	680 ±20%	1.9 ±10%	40	40	
MP005779	360 ±15%	0.65 ±7%	50	43	

Notes:

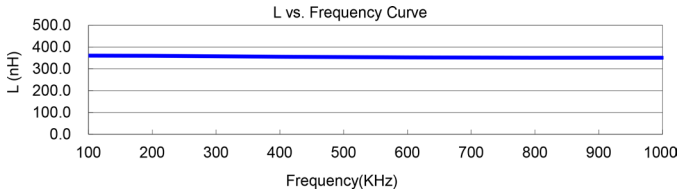
1. L is measured at: 100KHz, 1.0V @ 25°C.
2. Isat: DC current that causes inductance to drop by approximately 20% from L
3. Irms: DC current that causes an approximate temperature rise (ΔT) of 40°C.

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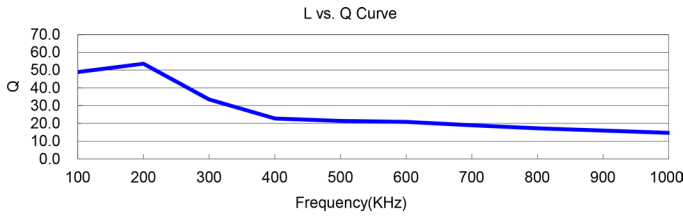


Electrical Characteristics Curve

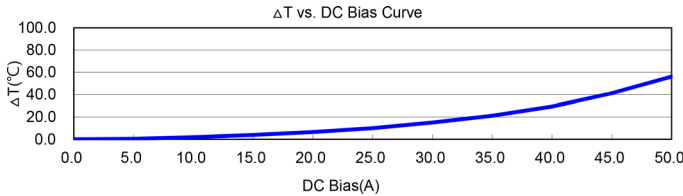
MP005775



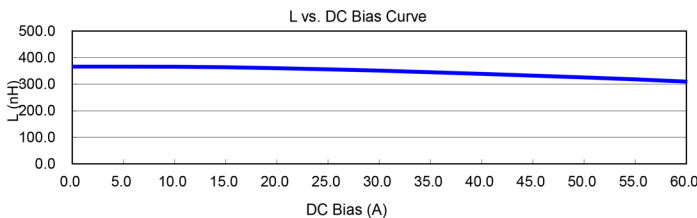
Frequency(KHz)	100	200	300	400	500	600	700	800	900	1000
L (nH)	360.48	360.25	357.8	355.62	353.65	352.56	351.85	351.35	351.02	350.83



Frequency(KHz)	100	200	300	400	500	600	700	800	900	1000
Q	48.95	53.56	33.42	22.81	21.39	20.82	18.98	17.22	16	14.73



DC Bias(A)	0	5	10	15	20	25	30	35	40	45	50
ΔT(°C)	0	0.6	1.9	4	6.5	10.0	15.1	21.2	29.5	41.2	56.2



DC Bias(A)	0	5	10	15	20	25	30	35	40	45	50	55	60
L (nH)	366.25	366.05	365.6	363.95	360.2	355.85	350.9	345.2	338.55	332.2	325.5	318.15	309.8

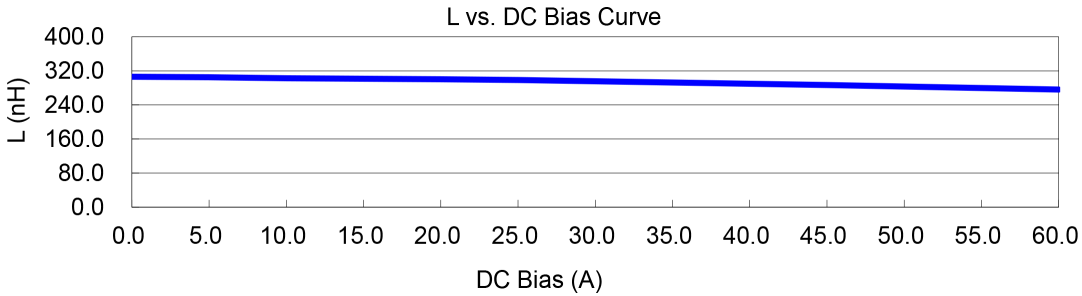
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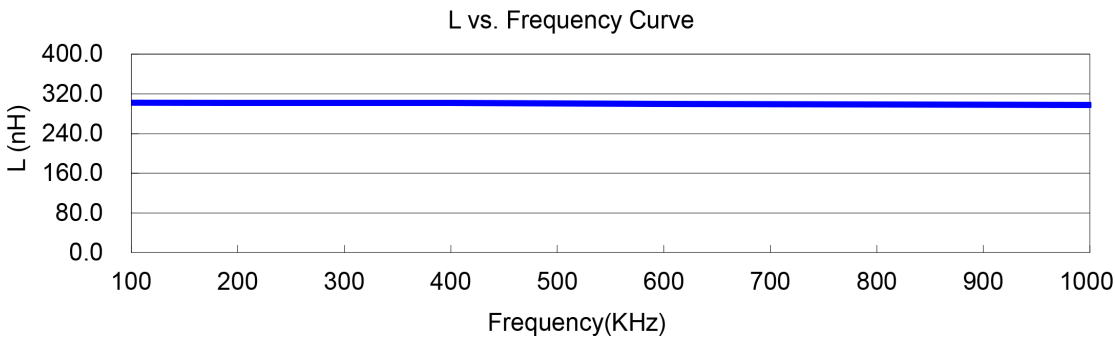
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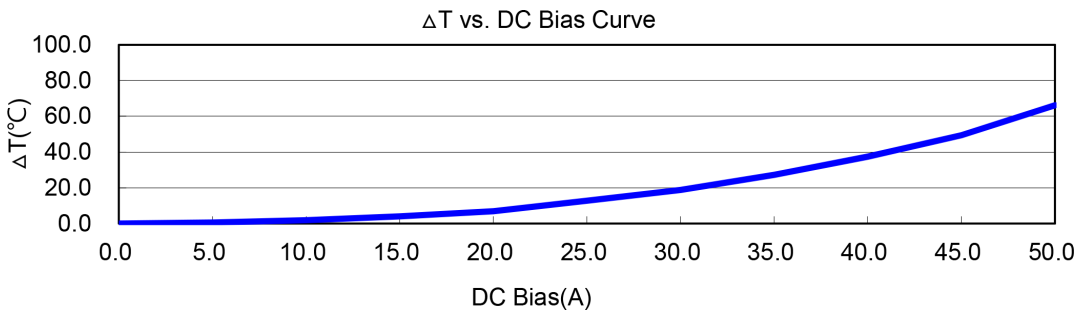
MP005776



DC Bias(A)	0.0	5	10	15	20	25	30	35	40	45	50	55	60
L (nH)	306.52	305.25	303.02	301.9	300.4	298.32	295.8	292.86	290	286.78	283.42	279.88	276.16



Frequency(KHz)	100	200	300	400	500	600	700	800	900	1000
L (nH)	302.04	301.88	301.56	301.25	300.26	299.56	299.01	298.55	298.01	297.7



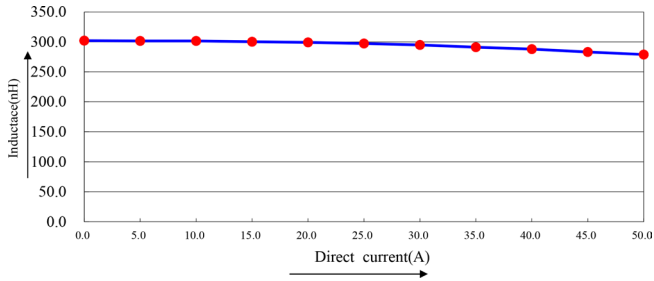
DC Bias(A)	0	5	10	15	20	25	30	35	40	45	50
$\Delta T(^{\circ}C)$	0	0.6	1.9	4.1	7	12.8	18.8	27.3	37.5	49.5	66.2

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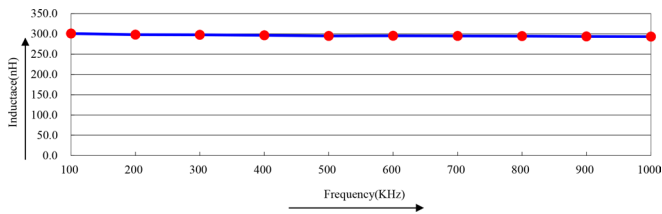


Unshielded Power Inductors - Radial Leaded

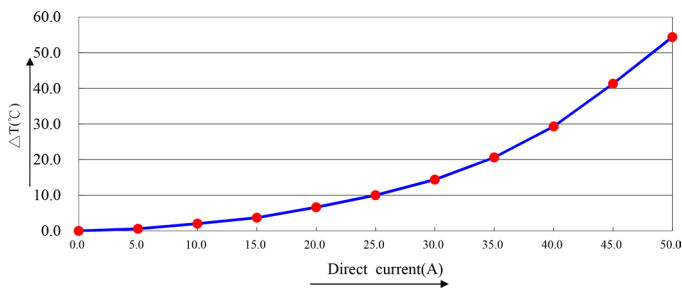
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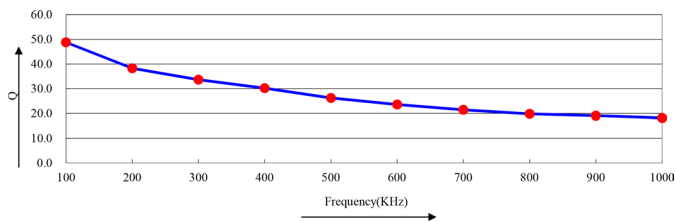
Direct current(A)	0.0	5	10	15	20	25	30	35	40	45	50
Inductance(nH)	302.05	301.7	301.6	300.4	299.25	297.45	294.85	291.1	287.85	283.25	278.95



Frequency(KHz)	100	200	300	400	500	600	700	800	900	1000
Inductance(nH)	300.92	298.2	297.9	296.68	294.94	295.45	295.15	294.45	293.85	293.45



Direct current(A)	0	5	10	15	20	25	30	35	40	45	50
ΔT(°C)	0	0.6	2	3.7	6.6	10	14.4	20.6	29.3	41.3	54.4



Frequency(KHz)	100	200	300	400	500	600	700	800	900	1000
Q	48.8	38.26	33.67	30.19	26.27	23.56	21.4	19.78	19.06	18.16

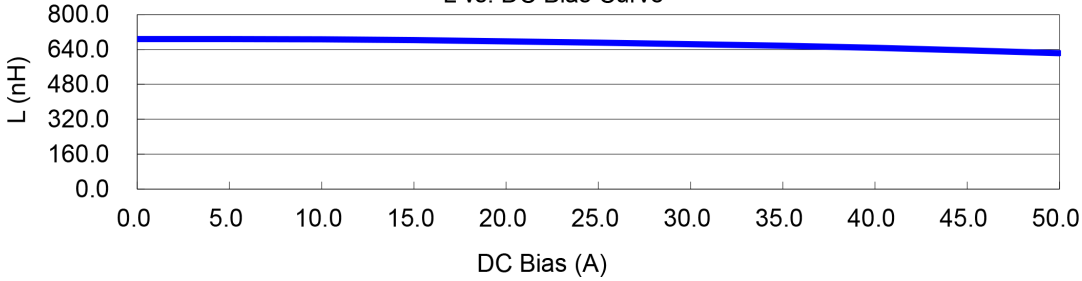
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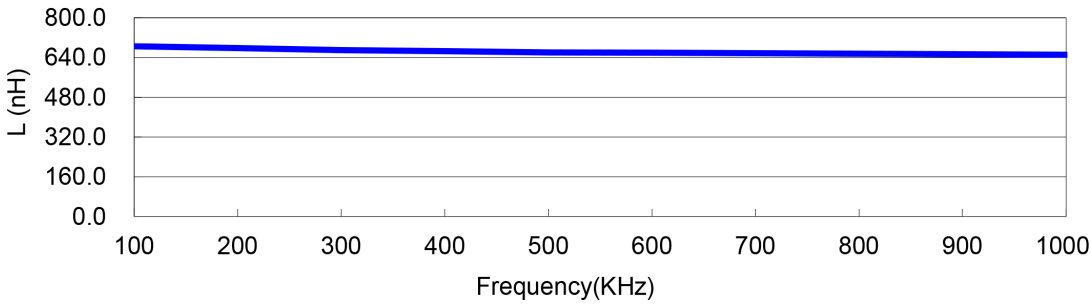
MP005778

L vs. DC Bias Curve



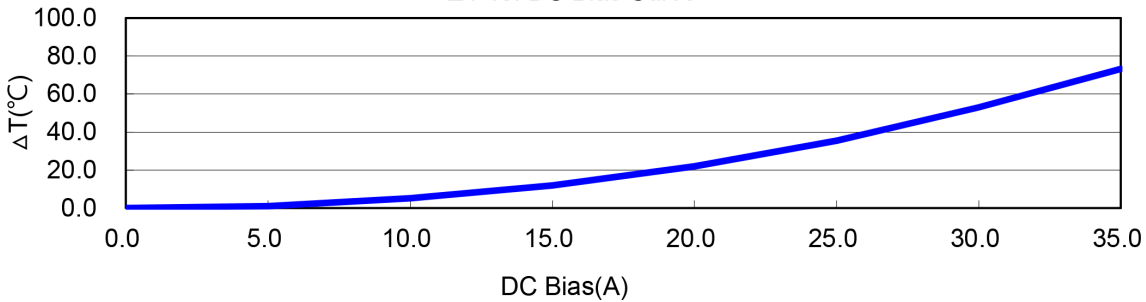
DC Bias(A)	0	5	10	15	20	25	30	35	40	45	50
L (nH)	688.3	687.35	686.6	682.45	677.6	671.9	664.9	656.85	647.3	636.15	623.4

L vs. Frequency Curve



Frequency(KHz)	100	200	300	400	500	600	700	800	900	1000
L (nH)	685	677.5	669.5	665.15	660.45	659.5	657.4	655.2	653.7	650.5

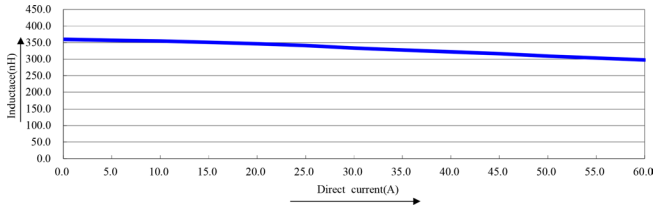
ΔT vs. DC Bias Curve



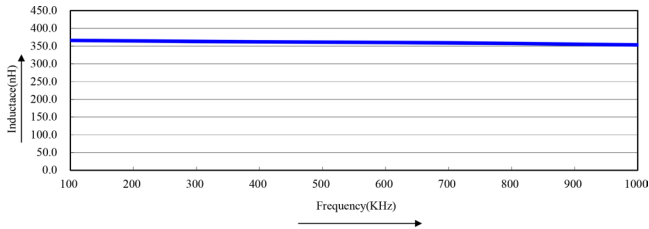
DC Bias(A)	0	5	10	15	20	25	30	35
$\Delta T(^{\circ}C)$	0	1	5.2	11.9	22	35.4	53	73.2

Unshielded Power Inductors - Radial Leaded

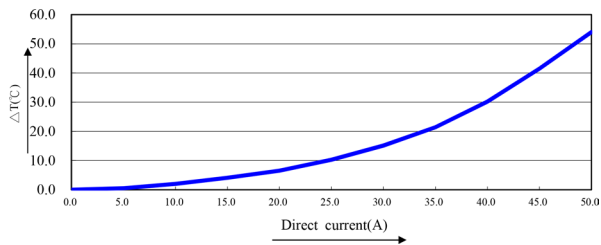
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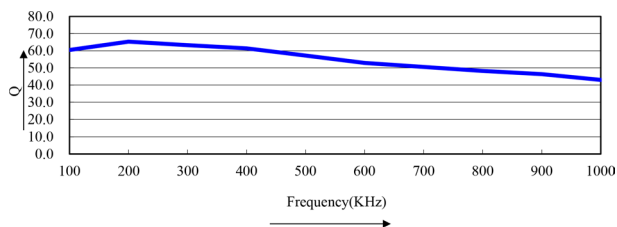
Direct current(A)	0	5	10	15	20	25	30	35	40	45	50	55	60
Inductance (nH)	359.8	356.95	354.55	350.95	346.4	341	333.15	327.55	322.05	316.25	308.85	303.4	297.36



Frequency(KHz)	100	200	300	400	500	600	700	800	900	1000
Inductance(nH)	365.96	364.7	363.11	362.06	361.27	360.25	359.3	357.36	355.27	353.6



Direct current(A)	0	5	10	15	20	25	30	35	40	45	50
ΔT(°C)	0	0.5	2	4.1	6.5	10.3	15.1	21.4	30.2	41.5	54



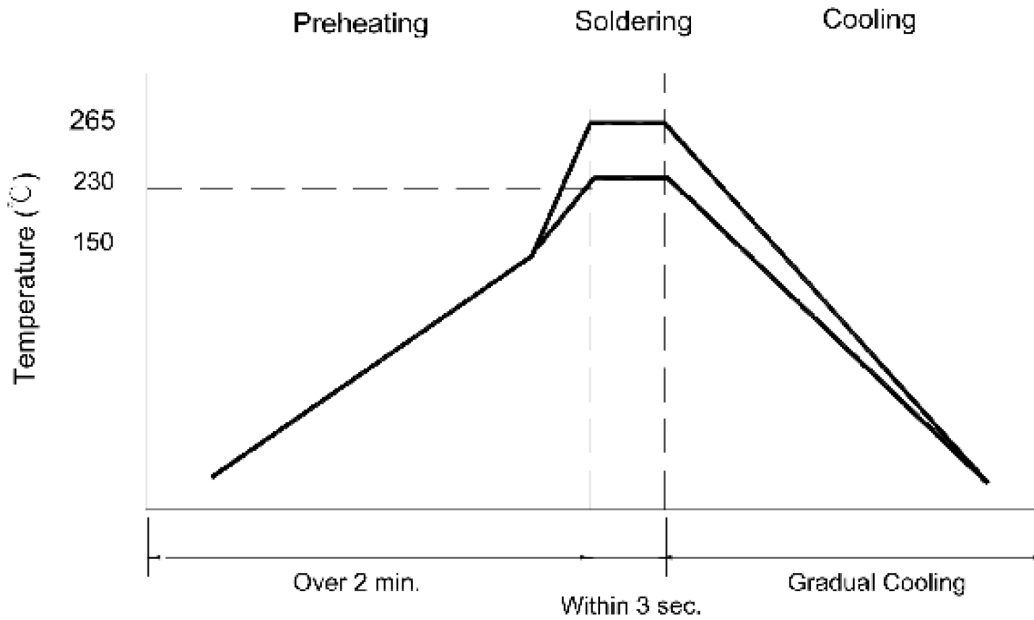
Frequency(KHz)	100	200	300	400	500	600	700	800	900	1000
Q	60.48	65.32	63.28	61.36	57.22	52.86	50.55	48.27	46.38	43

Unshielded Power Inductors - Radial Leaded



Recommended Soldering Technologies

Wave Soldering Profile



Note:

The reflow profile in the above table is only for qualification and is not meant to specify board assembly profiles. Actual board assembly profiles must be based on the customer’s specific board design, solder paste and process, and should not exceed the parameters as the Reflow profile shows.

Part Number Table

Description	Part Number
Power Inductor, Unshielded, 360nH, 15%, Radial Leaded	MP005775
Power Inductor, Unshielded, 300nH, 15%, Radial Leaded	MP005776
Power Inductor, Unshielded, 300nH, 15%, Radial Leaded	MP005777
Power Inductor, Unshielded, 680nH, 20%, Radial Leaded	MP005778
Power Inductor, Unshielded, 360nH, 15%, Radial Leaded	MP005779

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