

**A FEATURES**

- Flat bottom design
- Low DC-resistance
- Flame retardant polyolefin wrap to protect the winding
- Current ratings up to 8.5 Amps
- Inductance values from 1.0μH to 18mH
- Operating Temperature range from -40°C to +125°C (Including Self-heating)
- Custom design on request



**B PART NUMBER SYSTEM**

1MZ    0810    -    100    M    F    B  
 ①            ②            ③            ④            ⑤            ⑥

<b>①</b>	Series	<b>②</b>	Dimension Code (D*H) (mm)	
1MZ	Series Code		0608 (Φ7.0 <sub>max</sub> ×8.5 <sub>max</sub> )	0807 (Φ9.5 <sub>max</sub> ×7.5 <sub>max</sub> )
			0810 (Φ9.5 <sub>max</sub> ×11.5 <sub>max</sub> )	1010 (Φ11.0 <sub>max</sub> ×11.5 <sub>max</sub> )
			1014 (Φ11.0 <sub>max</sub> ×14.5 <sub>max</sub> )	
<b>③</b>	Inductance Code	<b>④</b>	Inductance Tolerance	
e.g.	Calculation	K	±10%	
2R2	2.2μH	M	±20%	
100	10×10 <sup>0</sup> μH = 10μH	<b>⑥</b>	Packing Method	
101	10×10 <sup>1</sup> μH = 100μH	T	Tray Plate	
<b>⑤</b>	RoHS Compliant	B	Bulk in Plastic Bag	

**C DRAWINGS AND DIMENSIONS**

Drawings	Schematic

Case Size	Dimensions (mm)				
	A <sub>max</sub>	B <sub>max</sub>	C <sub>ref</sub>	D <sub>ref</sub>	E
1MZ0608	7.0	8.5	4.0	0.6	2.5±0.5
1MZ0807	9.5	7.5	4.0	0.6	5.0±0.5
1MZ0810	9.5	11.5	4.0	0.6	5.0±0.5
1MZ1010	11.0	11.5	4.0	0.6	5.0±0.5
1MZ1014	11.0	14.5	4.0	0.6	5.0±0.5

## D SPECIFICATIONS

Part Number	Inductance		DCR	Irms	Isat	SRF <sub>typ.</sub>
	μH	Tolerance	Max.(Ω)	A	A	MHz
1MZ0608-1R0MF_	1.0	±20%	0.015	8.50	8.00	140
1MZ0608-2R2MF_	2.2	±20%	0.020	6.30	4.30	65
1MZ0608-3R3MF_	3.3	±20%	0.025	4.70	4.00	48
1MZ0608-4R7MF_	4.7	±20%	0.030	4.20	3.70	40
1MZ0608-6R8MF_	6.8	±20%	0.034	3.30	3.00	32
1MZ0608-100KF_	10	±10%	0.080	2.50	2.60	28
1MZ0608-220KF_	22	±10%	0.130	1.80	1.70	15
1MZ0608-330KF_	33	±10%	0.220	1.40	1.40	14
1MZ0608-470KF_	47	±10%	0.340	1.18	1.20	10.6
1MZ0608-680KF_	68	±10%	0.400	0.80	1.00	7.5
1MZ0608-820KF_	82	±10%	0.470	0.80	0.90	7.2
1MZ0608-101KF_	100	±10%	0.550	0.80	0.80	7.1
1MZ0608-221KF_	220	±10%	1.200	0.50	0.50	4.2
1MZ0608-471KF_	470	±10%	2.400	0.35	0.40	2.9
1MZ0608-681KF_	680	±10%	3.700	0.25	0.30	2.4
1MZ0608-102KF_	1000	±10%	6.000	0.25	0.27	1.8
1MZ0608-152KF_	1500	±10%	8.000	0.19	0.20	1.4
1MZ0608-222KF_	2200	±10%	11.800	0.16	0.18	1.2
1MZ0807-1R0MF_	1.0	±20%	0.008	8.50	10.00	180
1MZ0807-2R2MF_	2.2	±20%	0.012	7.50	6.00	80
1MZ0807-2R7MF_	2.7	±20%	0.014	6.54	5.50	40
1MZ0807-3R3MF_	3.3	±20%	0.017	5.97	5.00	40
1MZ0807-3R9MF_	3.9	±20%	0.020	5.26	4.50	40
1MZ0807-4R7MF_	4.7	±20%	0.024	4.98	4.20	40
1MZ0807-5R6MF_	5.6	±20%	0.028	4.83	4.00	40
1MZ0807-6R8MF_	6.8	±20%	0.033	4.55	3.60	30
1MZ0807-8R2MF_	8.2	±20%	0.035	4.27	3.30	30
1MZ0807-100KF_	10	±10%	0.040	4.20	3.10	30
1MZ0807-120KF_	12	±10%	0.050	3.56	2.80	30
1MZ0807-150KF_	15	±10%	0.065	3.20	2.50	25
1MZ0807-180KF_	18	±10%	0.078	2.94	2.30	20
1MZ0807-220KF_	22	±10%	0.100	2.70	2.10	20
1MZ0807-270KF_	27	±10%	0.110	2.42	1.90	17
1MZ0807-330KF_	33	±10%	0.120	2.13	1.70	15
1MZ0807-390KF_	39	±10%	0.160	2.06	1.60	13
1MZ0807-470KF_	47	±10%	0.190	1.85	1.45	12
1MZ0807-560KF_	56	±10%	0.210	1.71	1.30	11
1MZ0807-680KF_	68	±10%	0.280	1.56	1.20	10
1MZ0807-820KF_	82	±10%	0.330	1.42	1.10	9
1MZ0807-101KF_	100	±10%	0.400	1.30	1.00	8
1MZ0807-121KF_	120	±10%	0.450	1.14	0.90	7
1MZ0807-151KF_	150	±10%	0.510	1.02	0.80	6
1MZ0807-181KF_	180	±10%	0.700	0.90	0.70	5
1MZ0807-221KF_	220	±10%	0.800	0.85	0.65	5
1MZ0807-271KF_	270	±10%	0.900	0.78	0.60	4.5
1MZ0807-331KF_	330	±10%	1.160	0.71	0.55	4.5
1MZ0807-391KF_	390	±10%	1.310	0.57	0.45	3.5
1MZ0807-471KF_	470	±10%	1.750	0.51	0.40	2.9
1MZ0807-561KF_	560	±10%	1.950	0.50	0.38	2.7
1MZ0807-681KF_	680	±10%	2.200	0.44	0.35	2.6
1MZ0807-821KF_	820	±10%	3.000	0.41	0.32	2.6
1MZ0807-102KF_	1000	±10%	3.400	0.40	0.30	2.6
1MZ0807-122KF_	1200	±10%	4.500	0.34	0.28	2.3
1MZ0807-152KF_	1500	±10%	5.200	0.30	0.25	2.1

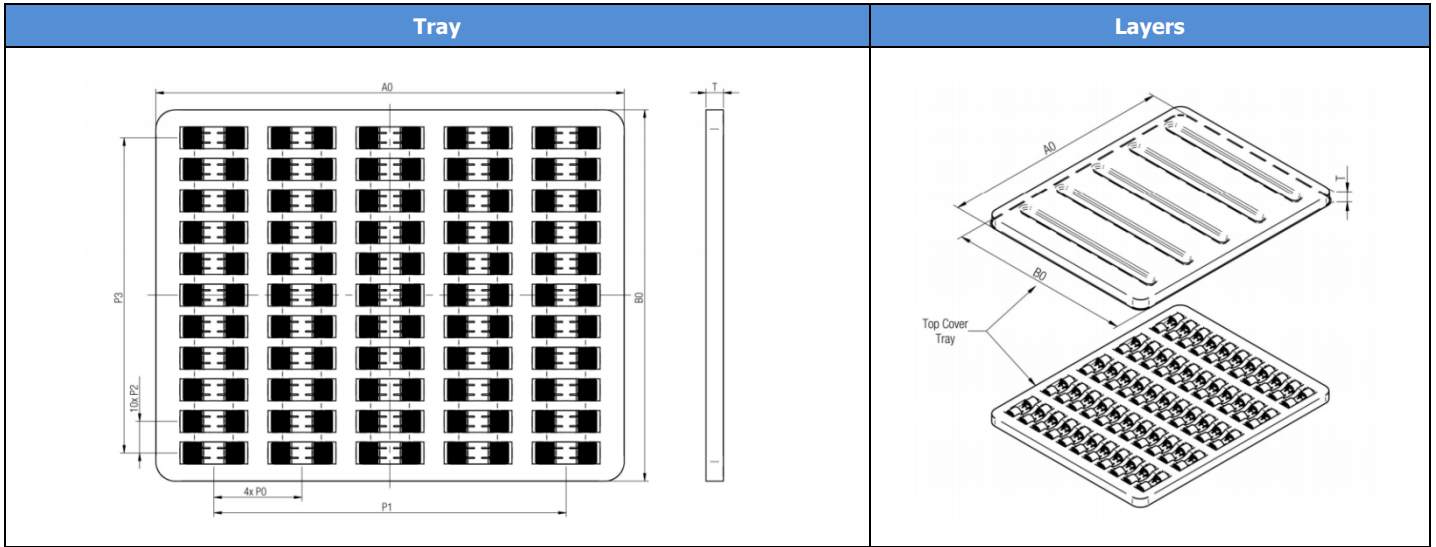
Part Number	Inductance		DCR	Irms	Isat	SRF <sub>1/2V<sub>D</sub></sub>
	μH	Tolerance	Max.(Ω)	A	A	MHz
1MZ0807-182KF_	1800	±10%	5.800	0.28	0.22	1.8
1MZ0807-222KF_	2200	±10%	8.000	0.26	0.20	1.5
1MZ0807-272KF_	2700	±10%	8.900	0.24	0.18	1.2
1MZ0807-332KF_	3300	±10%	11.800	0.19	0.15	1.1
1MZ0807-392KF_	3900	±10%	13.100	0.16	0.12	1.0
1MZ0807-472KF_	4700	±10%	17.600	0.15	0.10	1.0
1MZ0807-562KF_	5600	±10%	19.600	0.15	0.10	0.9
1MZ0807-682KF_	6800	±10%	27.000	0.14	0.10	0.8
1MZ0807-822KF_	8200	±10%	30.000	0.14	0.10	0.7
1MZ0807-103KF_	10000	±10%	34.000	0.13	0.10	0.7
1MZ0807-123KF_	12000	±10%	46.000	0.13	0.08	0.6
1MZ0807-153KF_	15000	±10%	53.000	0.11	0.06	0.5
1MZ0807-183KF_	18000	±10%	56.000	0.10	0.05	0.5
1MZ0810-100KF_	10	±10%	0.030	5.30	4.20	22.00
1MZ0810-120KF_	12	±10%	0.035	5.10	3.90	20.00
1MZ0810-150KF_	15	±10%	0.040	4.80	3.60	17.00
1MZ0810-180KF_	18	±10%	0.040	4.50	3.30	15.00
1MZ0810-220KF_	22	±10%	0.050	4.20	2.90	12.00
1MZ0810-270KF_	27	±10%	0.055	3.90	2.60	12.00
1MZ0810-330KF_	33	±10%	0.075	3.60	2.40	11.00
1MZ0810-390KF_	39	±10%	0.085	3.30	2.20	10.30
1MZ0810-470KF_	47	±10%	0.100	3.00	2.00	9.50
1MZ0810-560KF_	56	±10%	0.120	2.70	1.80	8.60
1MZ0810-680KF_	68	±10%	0.150	2.40	1.60	7.50
1MZ0810-820KF_	82	±10%	0.190	2.10	1.50	6.60
1MZ0810-101KF_	100	±10%	0.200	1.80	1.40	5.50
1MZ0810-121KF_	120	±10%	0.240	1.70	1.20	5.30
1MZ0810-151KF_	150	±10%	0.340	1.60	1.10	4.50
1MZ0810-181KF_	180	±10%	0.360	1.50	1.00	4.40
1MZ0810-221KF_	220	±10%	0.480	1.40	0.92	4.40
1MZ0810-271KF_	270	±10%	0.550	1.30	0.84	4.00
1MZ0810-331KF_	330	±10%	0.650	1.10	0.75	3.50
1MZ0810-391KF_	390	±10%	0.850	1.00	0.70	3.00
1MZ0810-471KF_	470	±10%	1.000	0.90	0.63	2.50
1MZ0810-561KF_	560	±10%	1.100	0.80	0.58	2.30
1MZ0810-681KF_	680	±10%	1.400	0.70	0.52	2.00
1MZ0810-821KF_	820	±10%	1.900	0.60	0.48	2.00
1MZ0810-102KF_	1000	±10%	2.200	0.50	0.43	2.00
1MZ0810-122KF_	1200	±10%	2.800	0.47	0.40	1.60
1MZ0810-152KF_	1500	±10%	3.200	0.45	0.35	1.30
1MZ0810-182KF_	1800	±10%	3.600	0.42	0.32	1.30
1MZ0810-222KF_	2200	±10%	4.800	0.39	0.29	1.30
1MZ0810-272KF_	2700	±10%	5.600	0.36	0.26	1.20
1MZ0810-332KF_	3300	±10%	7.600	0.33	0.24	1.00
1MZ0810-392KF_	3900	±10%	8.900	0.31	0.22	0.90
1MZ0810-472KF_	4700	±10%	9.600	0.28	0.20	0.90
1MZ0810-562KF_	5600	±10%	12.000	0.25	0.18	0.80
1MZ0810-682KF_	6800	±10%	14.000	0.23	0.16	0.70
1MZ0810-822KF_	8200	±10%	17.500	0.20	0.15	0.60
1MZ0810-103KF_	10000	±10%	21.000	0.17	0.13	0.60
1MZ0810-123KF_	12000	±10%	28.000	0.15	0.12	0.50
1MZ0810-153KF_	15000	±10%	32.000	0.14	0.11	0.50
1MZ0810-183KF_	18000	±10%	36.000	0.12	0.10	0.40
1MZ1010-100KF_	10	±10%	0.023	6.00	6.10	23.00
1MZ1010-120KF_	12	±10%	0.025	5.70	5.60	20.00
1MZ1010-150KF_	15	±10%	0.028	5.40	5.00	19.00
1MZ1010-180KF_	18	±10%	0.030	5.00	4.60	16.00

Part Number	Inductance		DCR	Irms	Isat	SRF <sub>1/2V<sub>D</sub></sub>
	μH	Tolerance	Max.(Ω)	A	A	MHz
1MZ1010-220KF_	22	±10%	0.042	4.70	4.10	15.00
1MZ1010-270KF_	27	±10%	0.046	4.40	3.70	12.00
1MZ1010-330KF_	33	±10%	0.055	4.10	3.40	11.00
1MZ1010-390KF_	39	±10%	0.075	3.80	3.10	10.30
1MZ1010-470KF_	47	±10%	0.082	3.50	2.80	9.50
1MZ1010-560KF_	56	±10%	0.090	3.20	2.60	8.60
1MZ1010-680KF_	68	±10%	0.120	2.80	2.30	7.50
1MZ1010-820KF_	82	±10%	0.140	2.50	2.10	7.00
1MZ1010-101KF_	100	±10%	0.150	2.20	1.90	7.00
1MZ1010-121KF_	120	±10%	0.210	2.10	1.75	6.00
1MZ1010-151KF_	150	±10%	0.245	1.90	1.60	5.00
1MZ1010-181KF_	180	±10%	0.300	1.80	1.45	5.00
1MZ1010-221KF_	220	±10%	0.360	1.70	1.30	4.30
1MZ1010-271KF_	270	±10%	0.490	1.60	1.20	4.00
1MZ1010-331KF_	330	±10%	0.570	1.40	1.10	3.50
1MZ1010-391KF_	390	±10%	0.620	1.30	1.00	3.00
1MZ1010-471KF_	470	±10%	0.810	1.20	0.90	3.00
1MZ1010-561KF_	560	±10%	0.920	1.05	0.80	2.30
1MZ1010-681KF_	680	±10%	1.200	0.93	0.75	2.00
1MZ1010-821KF_	820	±10%	1.350	0.80	0.68	2.00
1MZ1010-102KF_	1000	±10%	1.450	0.67	0.60	2.00
1MZ1010-122KF_	1200	±10%	2.100	0.63	0.55	1.60
1MZ1010-152KF_	1500	±10%	2.400	0.59	0.50	1.40
1MZ1010-182KF_	1800	±10%	3.500	0.55	0.45	1.30
1MZ1010-222KF_	2200	±10%	4.100	0.50	0.41	1.30
1MZ1010-272KF_	2700	±10%	5.200	0.47	0.37	1.20
1MZ1010-332KF_	3300	±10%	6.000	0.43	0.34	1.00
1MZ1010-392KF_	3900	±10%	7.000	0.39	0.31	0.90
1MZ1010-472KF_	4700	±10%	8.500	0.35	0.28	0.80
1MZ1010-562KF_	5600	±10%	10.000	0.30	0.26	0.80
1MZ1010-682KF_	6800	±10%	13.000	0.26	0.23	0.70
1MZ1010-822KF_	8200	±10%	15.800	0.22	0.21	0.60
1MZ1010-103KF_	10000	±10%	19.000	0.18	0.19	0.60
1MZ1010-123KF_	12000	±10%	22.000	0.17	0.17	0.50
1MZ1010-153KF_	15000	±10%	29.000	0.15	0.16	0.50
1MZ1010-183KF_	18000	±10%	33.000	0.13	0.14	0.40
1MZ1014-101KF_	100	±10%	0.100	2.40	2.50	4.10
1MZ1014-151KF_	150	±10%	0.160	2.00	2.10	3.10
1MZ1014-221KF_	220	±10%	0.230	1.60	1.75	2.30
1MZ1014-331KF_	330	±10%	0.300	1.40	1.60	2.20
1MZ1014-471KF_	470	±10%	0.470	1.15	1.15	1.80
1MZ1014-681KF_	680	±10%	0.710	0.90	1.00	1.50
1MZ1014-102KF_	1000	±10%	1.000	0.80	0.80	1.10
1MZ1014-122KF_	1200	±10%	1.100	0.70	0.75	1.00
1MZ1014-152KF_	1500	±10%	1.500	0.68	0.60	0.95
1MZ1014-222KF_	2200	±10%	2.100	0.48	0.56	0.83
1MZ1014-332KF_	3300	±10%	3.200	0.36	0.40	0.65
1MZ1014-822KF_	8200	±10%	7.500	0.30	0.30	0.44

1. Inductance measured @ 100KHz, 0.3V at 25°C temperature.
2. DCR measured @ 25°C.
3. Irms for specified temperature rise from 20°C ambient temperature.
4. Specifications subject to change without notice please check our website for latest information.

**E PACKAGING SPECIFICATIONS**

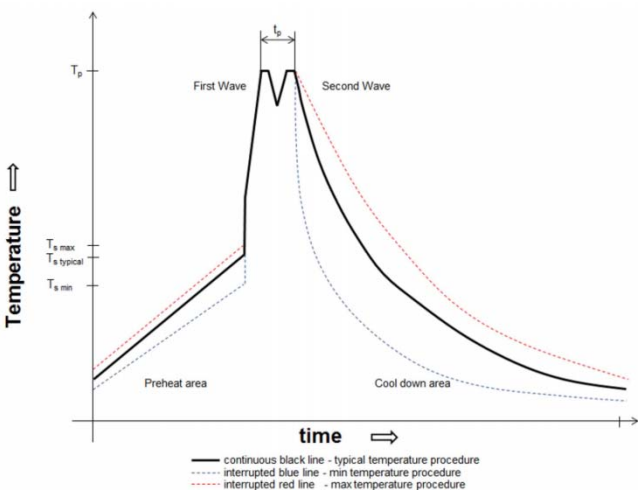
**Packaging Method 1:** Tray Plate (Code: T)



Size	Dimensions (mm)							Qty/Layer
	A0	B0	P0	P1	P2	P3	T	
1MZ0608	193	243	19	131.2	17	222	9.5	140
1MZ0807	193	243	19	131.2	17	222	9.5	140
1MZ0810	193	243	19	131.2	17	222	9.5	140
1MZ1010	193	243	19	131.2	17	222	9.5	140
1MZ1014	243	193	51	174	17	153	11	80

**Packaging Method 2:** Plastic Bag, 200PCS/Plastic Bag (Code: B)

**F RECOMMENDED SOLDER REFLOW PROFILE**



Profile Feature	Pb-Free Assembly	Sn-Pb Assembly
Preheat		
- Temperature Min (T <sub>smin</sub> )	100°C	100°C
- Temperature Typical (T <sub>s</sub> typical)	120°C	120°C
- Temperature Max (T <sub>smax</sub> )	130°C	130°C
- Time (t <sub>p</sub> ) from (T <sub>smin</sub> to T <sub>smax</sub> )	70 seconds	70 seconds
Δ preheat to max Temperature	150°C max.	150°C max.
Peak temperature (T <sub>p</sub> )	250°C - 260°C	235°C - 260°C
Time of actual peak temperature (t <sub>p</sub> )	max. 10 seconds max. 5 second each wave	max. 10 seconds max. 5 second each wave
Ramp-down rate		
- Min	~ 2 K/s	~ 2 K/s
- Typical	~ 3.5 K/s	~ 3.5 K/s
- Max	~ 5 K/s	~ 5 K/s
Time 25°C to 25°C	4 minutes	4 minutes

refer to EN 61760-1:2006