

⊕ Features

Shielded construction.
Frequency range up to 1.0 MHz.
Lowest DCR / μH , in this package size.

Handles high transient current spikes without saturation.
Ultra low buzz noise, due to composite construction.

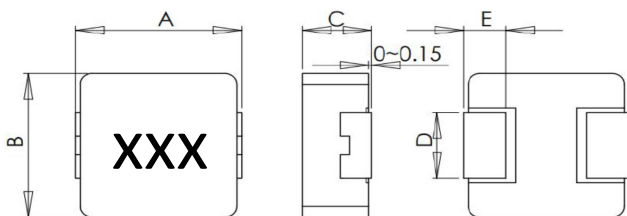
⊕ Product Identification :



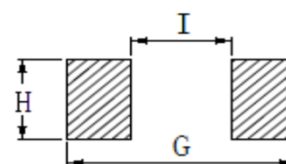
Series name	Dimensions(WxLxH)	Internal code
MPLZ	0420 4.06*4.45*2.0mm	H=Alloy
	0630 6.6*7.4*3.0mm	T=Carbonyl Iron Particle
	1770 17.5*17.15*7.0mm	S = Standard

Inductance		Tolerance	
R13	13 nH	J	5%
1R0	1 μH	K	10%
100	10 μH	M	20%

⊕ Shapes And Dimensions

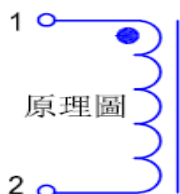


⊕ Recommended PCB Pattern



Part No.	Dimensions(mm)								
	A	B	C	D	E	G	H	I	
MPLZ0420H	4.40 ± 0.4	4.10 ± 0.3	2.00 Max.	2.00 ± 0.3	1.00 ± 0.3	5.20 Ref	2.50 Ref	2.20 Ref	
MPLZ0530H	5.50 ± 0.4	5.00 ± 0.3	3.00 Max.	2.00 ± 0.3	1.00 ± 0.3	6.00 Ref	2.80 Ref	2.20 Ref	
MPLZ0630H	7.00 ± 0.5	6.60 ± 0.2	3.00 Max.	3.00 ± 0.3	1.60 ± 0.3	8.30 Ref	3.50 Ref	3.40 Ref	
MPLZ0650H	7.00 ± 0.5	6.60 ± 0.2	5.00 Max.	3.00 ± 0.3	1.60 ± 0.3	8.30 Ref	3.50 Ref	3.40 Ref	
MPLZ1040H	10.80 ± 0.5	10.00 ± 0.3	4.00 Max.	3.00 ± 0.5	2.00 ± 0.5	12.20 Ref	4.10 Ref	5.80 Ref	
MPLZ1050H	10.80 ± 0.5	10.00 ± 0.3	5.00 Max.	3.00 ± 0.5	2.00 ± 0.5	12.20 Ref	4.10 Ref	5.80 Ref	
MPLZ1235H	13.50 ± 0.5	12.60 ± 0.3	3.50 Max.	4.00 ± 0.50	2.30 ± 0.50	13.80 Ref	5.00 Ref	7.80 Ref	
MPLZ1250H	13.50 ± 0.5	12.60 ± 0.3	5.00 Max.	4.00 ± 0.50	2.30 ± 0.50	13.80 Ref	5.00 Ref	7.80 Ref	
MPLZ1260H	13.50 ± 0.5	12.60 ± 0.3	6.00 Max.	4.00 ± 0.50	2.30 ± 0.50	13.80 Ref	5.00 Ref	7.80 Ref	
MPLZ1770H	17.50 ± 0.5	17.00 ± 0.5	7.00 Max.	12.00 ± 0.50	2.50 ± 0.50	18.20 Ref	12.30 Ref	11.20 Ref	

⊕ Equivalent Circuit Schematic :



⊕ Material List :

No.	Location	Material
1	Core	Alloy Powder or Equivalent
2	Wire	G2Polyurethane enameled or Equivalent
3	Hoop	C5191H or Equivalent
4	Glue	Resin

1. Operating temperature $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
2. Storage conditions $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ0420H-R10M	0.1 $\pm 20\%$	12 Max	22 Max	3.5 Typ	4 Max	100KHz/0.25V
MPLZ0420H-R22M	0.22 $\pm 20\%$	9 Max	12.5 Max	6 Typ	6.6 Max	100KHz/0.25V
MPLZ0420H-R47M	0.47 $\pm 20\%$	7 Max	12 Max	12.5 Typ	14 Max	100KHz/0.25V
MPLZ0420H-R56M	0.56 $\pm 20\%$	6.5 Max	10 Max	14 Typ	16 Max	100KHz/0.25V
MPLZ0420H-R68M	0.68 $\pm 20\%$	6 Max	9 Max	16 Typ	18 Max	100KHz/0.25V
MPLZ0420H-1R0M	1 $\pm 20\%$	4.5 Max	7 Max	24 Typ	27 Max	100KHz/0.25V
MPLZ0420H-1R2M	1.2 $\pm 20\%$	4.5 Max	7 Max	24 Typ	27 Max	100KHz/0.25V
MPLZ0420H-1R5M	1.5 $\pm 20\%$	4 Max	6 Max	38 Typ	46 Max	100KHz/0.25V
MPLZ0420H-2R2M	2.2 $\pm 20\%$	3 Max	5 Max	52 Typ	58 Max	100KHz/0.25V
MPLZ0420H-3R3M	3.3 $\pm 20\%$	2.5 Max	4 Max	74 Typ	87 Max	100KHz/0.25V
MPLZ0420H-4R7M	4.7 $\pm 20\%$	2.2 Max	3 Max	92 Typ	105 Max	100KHz/0.25V
MPLZ0420H-6R8M	6.8 $\pm 20\%$	2 Max	2.5 Max	162 Typ	178 Max	100KHz/0.25V
MPLZ0420H-8R2M	8.2 $\pm 20\%$	1.8 Max	2 Max	188 Typ	207 Max	100KHz/0.25V
MPLZ0420H-100M	10 $\pm 20\%$	1.6 Max	1.8 Max	256 Typ	282 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ0530H-R47M	0.47 $\pm 20\%$	12 Max	15 Max	6.5 Typ	7.5 Max	100KHz/0.25V
MPLZ0530H-R68M	0.68 $\pm 20\%$	8.5 Max	14 Max	8.5 Typ	9.8 Max	100KHz/0.25V
MPLZ0530H-1R0M	1 $\pm 20\%$	8 Max	11 Max	13 Typ	14 Max	100KHz/0.25V
MPLZ0530H-1R5M	1.5 $\pm 20\%$	6 Max	9.5 Max	16 Typ	20 Max	100KHz/0.25V
MPLZ0530H-2R2M	2.2 $\pm 20\%$	5.5 Max	9 Max	27 Typ	33 Max	100KHz/0.25V
MPLZ0530H-3R3M	3.3 $\pm 20\%$	5 Max	6 Max	32 Typ	38 Max	100KHz/0.25V
MPLZ0530H-4R7M	4.7 $\pm 20\%$	4 Max	5 Max	48 Typ	54 Max	100KHz/0.25V
MPLZ0530H-6R8M	6.8 $\pm 20\%$	3.5 Max	4.3 Max	75 Typ	76 Max	100KHz/0.25V
MPLZ0530H-100M	10 $\pm 20\%$	2.7 Max	3.5 Max	115 Typ	130 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ0630H-R10M	0.1 $\pm 20\%$	32.5 Max	60 Max	1.5 Typ	1.7 Max	100KHz/0.25V
MPLZ0630H-R15M	0.15 $\pm 20\%$	30 Max	40 Max	1.9 Typ	2.5 Max	100KHz/0.25V
MPLZ0630H-R22M	0.22 $\pm 20\%$	21 Max	34 Max	2.5 Typ	3 Max	100KHz/0.25V
MPLZ0630H-R33M	0.33 $\pm 20\%$	21 Max	25 Max	3 Typ	3.5 Max	100KHz/0.25V
MPLZ0630H-R47M	0.47 $\pm 20\%$	18 Max	20 Max	3.5 Typ	4.1 Max	100KHz/0.25V
MPLZ0630H-R56M	0.47 $\pm 20\%$	15 Max	18 Max	4.25 Typ	4.9 Max	100KHz/0.25V
MPLZ0630H-R68M	0.68 $\pm 20\%$	14 Max	17 Max	5 Typ	5.7 Max	100KHz/0.25V
MPLZ0630H-R82M	0.82 $\pm 20\%$	12 Max	16 Max	6 Typ	6.9 Max	100KHz/0.25V
MPLZ0630H-1R0M	1 $\pm 20\%$	11 Max	15 Max	7 Typ	7.5 Max	100KHz/0.25V
MPLZ0630H-1R2M	1.2 $\pm 20\%$	10 Max	14 Max	8 Typ	10.5 Max	100KHz/0.25V
MPLZ0630H-1R5M	1.5 $\pm 20\%$	9 Max	14 Max	10.6 Typ	12.1 Max	100KHz/0.25V
MPLZ0630H-2R2M	2.2 $\pm 20\%$	7 Max	10 Max	15.5 Typ	17.5 Max	100KHz/0.25V
MPLZ0630H-3R3M	3.3 $\pm 20\%$	6 Max	9.5 Max	23 Typ	26 Max	100KHz/0.25V
MPLZ0630H-4R7M	4.7 $\pm 20\%$	5.5 Max	6.5 Max	34.5 Typ	38 Max	100KHz/0.25V
MPLZ0630H-5R6M	5.6 $\pm 20\%$	5 Max	6.25 Max	36 Typ	42 Max	100KHz/0.25V
MPLZ0630H-6R8M	6.8 $\pm 20\%$	5 Max	6 Max	43 Typ	50 Max	100KHz/0.25V
MPLZ0630H-8R2M	8.2 $\pm 20\%$	4.5 Max	6 Max	58.5 Typ	65 Max	100KHz/0.25V
MPLZ0630H-100M	10 $\pm 20\%$	4.5 Max	5.5 Max	64 Typ	68 Max	100KHz/0.25V
MPLZ0630H-120M	12 $\pm 20\%$	3.5 Max	5 Max	85 Typ	98 Max	100KHz/0.25V
MPLZ0630H-150M	15 $\pm 20\%$	3 Max	4.5 Max	98 Typ	115 Max	100KHz/0.25V
MPLZ0630H-220M	22 $\pm 20\%$	2.3 Max	3.1 Max	115 Typ	165 Max	100KHz/0.25V
MPLZ0630H-330M	33 $\pm 20\%$	2 Max	2.5 Max	165 Typ	257 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ0650S-R13M	0.13 \pm 20%	42 Max	48 Max	1 Typ	1.2 Max	100KHz/0.25V
MPLZ0650S-R22M	0.22 \pm 20%	30 Max	35 Max	1.1 Typ	1.3 Max	100KHz/0.25V
MPLZ0650S-R36M	0.36 \pm 20%	21 Max	25 Max	2.7 Typ	3.1 Max	100KHz/0.25V
MPLZ0650S-R40M	0.4 \pm 20%	20 Max	23 Max	3.2 Typ	3.5 Max	100KHz/0.25V
MPLZ0650S-R47M	0.47 \pm 20%	20 Max	21 Max	3.25 Typ	3.75 Max	100KHz/0.25V
MPLZ0650S-R56M	0.56 \pm 20%	18 Max	20 Max	3.4 Typ	3.6 Max	100KHz/0.25V
MPLZ0650S-R68M	0.68 \pm 20%	16.5 Max	18 Max	3.9 Typ	4.2 Max	100KHz/0.25V
MPLZ0650S-R82M	0.82 \pm 20%	16 Max	17 Max	4.6 Typ	4.9 Max	100KHz/0.25V
MPLZ0650S-1R0M	1 \pm 20%	12.5 Max	15 Max	5.6 Typ	6.5 Max	100KHz/0.25V
MPLZ0650S-1R2M	1.2 \pm 20%	11 Max	13 Max	6.7 Typ	7.5 Max	100KHz/0.25V
MPLZ0650S-1R5M	1.5 \pm 20%	11 Max	12 Max	6.7 Typ	7.5 Max	100KHz/0.25V
MPLZ0650S-2R2M	2.2 \pm 20%	9 Max	10 Max	11.2 Typ	12.5 Max	100KHz/0.25V
MPLZ0650S-3R3M	3.3 \pm 20%	8.5 Max	9 Max	19.9 Typ	20.9 Max	100KHz/0.25V
MPLZ0650S-4R7M	4.7 \pm 20%	6 Max	8 Max	26 Typ	29 Max	100KHz/0.25V
MPLZ0650S-5R6M	5.6 \pm 20%	6 Max	7 Max	31.5 Typ	34.4 Max	100KHz/0.25V
MPLZ0650S-6R8M	6.8 \pm 20%	5.5 Max	6 Max	36.5 Typ	41 Max	100KHz/0.25V
MPLZ0650S-8R2M	8.2 \pm 20%	5.5 Max	5.5 Max	40 Typ	43 Max	100KHz/0.25V
MPLZ0650S-100M	10 \pm 20%	4.5 Max	5.3 Max	54 Typ	60 Max	100KHz/0.25V
MPLZ0650S-120M	12 \pm 20%	4 Max	5 Max	58 Typ	65 Max	100KHz/0.25V
MPLZ0650S-150M	15 \pm 20%	3.1 Max	4 Max	78 Typ	90 Max	100KHz/0.25V
MPLZ0650S-180M	18 \pm 20%	3 Max	3.5 Max	83 Typ	105 Max	100KHz/0.25V
MPLZ0650S-220M	22 \pm 20%	2.6 Max	3.5 Max	120 Typ	140 Max	100KHz/0.25V
MPLZ0650S-330M	33 \pm 20%	2.3 Max	3 Max	165 Typ	190 Max	100KHz/0.25V
MPLZ0650S-470M	47 \pm 20%	2 Max	2.8 Max	250 Typ	290 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ1040H-R22M	0.22 \pm 20%	32 Max	55 Max	0.9 Typ	1 Max	100KHz/0.25V
MPLZ1040H-R36M	0.36 \pm 20%	30 Max	50 Max	1.05 Typ	1.2 Max	100KHz/0.25V
MPLZ1040H-R39M	0.39 \pm 20%	26 Max	45 Max	1.1 Typ	1.2 Max	100KHz/0.25V
MPLZ1040H-R45M	0.45 \pm 20%	26 Max	42 Max	1.1 Typ	1.3 Max	100KHz/0.25V
MPLZ1040H-R47M	0.47 \pm 20%	25 Max	40 Max	1.53 Typ	1.68 Max	100KHz/0.25V
MPLZ1040H-R56M	0.56 \pm 20%	25 Max	33 Max	1.6 Typ	1.8 Max	100KHz/0.25V
MPLZ1040H-R68M	0.68 \pm 20%	23 Max	30 Max	2.1 Typ	2.4 Max	100KHz/0.25V
MPLZ1040H-1R0M	1 \pm 20%	18 Max	28 Max	3 Typ	3.3 Max	100KHz/0.25V
MPLZ1040H-1R5M	1.5 \pm 20%	15 Max	26 Max	3.8 Typ	4.2 Max	100KHz/0.25V
MPLZ1040H-1R8M	1.8 \pm 20%	13 Max	23 Max	5 Typ	5.8 Max	100KHz/0.25V
MPLZ1040H-2R0M	2 \pm 20%	12 Max	20 Max	6 Typ	6.9 Max	100KHz/0.25V
MPLZ1040H-2R2M	2.2 \pm 20%	12 Max	18 Max	6 Typ	7 Max	100KHz/0.25V
MPLZ1040H-3R3M	3.3 \pm 20%	10 Max	16 Max	10.8 Typ	11.8 Max	100KHz/0.25V
MPLZ1040H-4R7M	4.7 \pm 20%	8.5 Max	13 Max	17 Typ	20 Max	100KHz/0.25V
MPLZ1040H-5R6M	5.6 \pm 20%	8 Max	11 Max	20 Typ	23 Max	100KHz/0.25V
MPLZ1040H-6R8M	6.8 \pm 20%	7 Max	10 Max	22.5 Typ	25 Max	100KHz/0.25V
MPLZ1040H-8R2M	8.2 \pm 20%	7 Max	9 Max	25 Typ	27 Max	100KHz/0.25V
MPLZ1040H-100M	10 \pm 20%	6.5 Max	8.5 Max	27 Typ	30 Max	100KHz/0.25V
MPLZ1040H-150M	15 \pm 20%	6.25 Max	7 Max	40 Typ	45 Max	100KHz/0.25V
MPLZ1040H-220M	22 \pm 20%	5 Max	5.5 Max	60 Typ	66 Max	100KHz/0.25V
MPLZ1040H-330M	33 \pm 20%	4 Max	4.5 Max	85 Typ	92 Max	100KHz/0.25V
MPLZ1040H-470M	47 \pm 20%	3.3 Max	3.5 Max	130 Typ	145 Max	100KHz/0.25V
MPLZ1040H-680M	68 \pm 20%	2 Max	3 Max	195 Typ	210 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ1050H-R22M	0.22 $\pm 20\%$	37 Max	60 Max	0.67 Typ	0.8 Max	100KHz/0.25V
MPLZ1050H-R26M	0.26 $\pm 20\%$	35 Max	60 Max	0.9 Typ	1 Max	100KHz/0.25V
MPLZ1050H-1R0M	1 $\pm 20\%$	19 Max	29 Max	2.3 Typ	2.6 Max	100KHz/0.25V
MPLZ1050H-1R2M	1.2 $\pm 20\%$	18 Max	28 Max	2.8 Typ	3.1 Max	100KHz/0.25V
MPLZ1050H-1R5M	1.5 $\pm 20\%$	16 Max	26 Max	3.3 Typ	3.8 Max	100KHz/0.25V
MPLZ1050H-2R2M	2.2 $\pm 20\%$	13 Max	20 Max	5.4 Typ	6 Max	100KHz/0.25V
MPLZ1050H-3R3M	3.3 $\pm 20\%$	12 Max	16 Max	9.3 Typ	11 Max	100KHz/0.25V
MPLZ1050H-4R7M	4.7 $\pm 20\%$	9 Max	15 Max	12.5 Typ	15 Max	100KHz/0.25V
MPLZ1050H-6R8M	6.8 $\pm 20\%$	8.5 Max	14 Max	16 Typ	18.5 Max	100KHz/0.25V
MPLZ1050H-100M	10 $\pm 20\%$	8 Max	10 Max	25 Typ	28 Max	100KHz/0.25V
MPLZ1050H-220M	22 $\pm 20\%$	5.5 Max	6 Max	45 Typ	50 Max	100KHz/0.25V
MPLZ1050H-330M	33 $\pm 20\%$	4.5 Max	5 Max	70 Typ	76 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ1235H-R22M	0.22 $\pm 20\%$	38 Max	55 Max	1 Typ	1.2 Max	100KHz/0.25V
MPLZ1235H-R56M	0.56 $\pm 20\%$	29 Max	44 Max	1.7 Typ	2 Max	100KHz/0.25V
MPLZ1235H-R68M	0.68 $\pm 20\%$	28 Max	42 Max	2 Typ	2.3 Max	100KHz/0.25V
MPLZ1235H-R82M	0.82 $\pm 20\%$	25 Max	37 Max	2.5 Typ	2.9 Max	100KHz/0.25V
MPLZ1235H-1R0M	1 $\pm 20\%$	24 Max	34 Max	3 Typ	3.4 Max	100KHz/0.25V
MPLZ1235H-1R2M	1.2 $\pm 20\%$	20 Max	27 Max	3.3 Typ	3.8 Max	100KHz/0.25V
MPLZ1235H-1R5M	1.5 $\pm 20\%$	18 Max	26 Max	4.1 Typ	4.7 Max	100KHz/0.25V
MPLZ1235H-2R2M	2.2 $\pm 20\%$	14 Max	20 Max	6 Typ	6.9 Max	100KHz/0.25V
MPLZ1235H-3R3M	3.3 $\pm 20\%$	13 Max	16 Max	8.3 Typ	9.5 Max	100KHz/0.25V
MPLZ1235H-4R7M	4.7 $\pm 20\%$	9 Max	15 Max	15 Typ	17 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ1235H-5R6M	5.6 $\pm 20\%$	8 Max	14 Max	18.3 Typ	19 Max	100KHz/0.25V
MPLZ1235H-6R8M	6.8 $\pm 20\%$	7 Max	13 Max	19.8 Typ	22 Max	100KHz/0.25V
MPLZ1235H-8R2M	8.2 $\pm 20\%$	6.5 Max	12 Max	24.8 Typ	28 Max	100KHz/0.25V
MPLZ1235H-100M	10 $\pm 20\%$	6 Max	10 Max	26 Typ	29 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ1250H-R22M	0.22 $\pm 20\%$	51 Max	75 Max	0.6 Typ	0.8 Max	100KHz/0.25V
MPLZ1250H-R36M	0.36 $\pm 20\%$	41 Max	60 Max	0.77 Typ	1.1 Max	100KHz/0.25V
MPLZ1250H-R47M	0.47 $\pm 20\%$	35 Max	56 Max	1 Typ	1.4 Max	100KHz/0.25V
MPLZ1250H-R68M	0.68 $\pm 20\%$	33 Max	45 Max	1.34 Typ	1.55 Max	100KHz/0.25V
MPLZ1250H-1R0M	1 $\pm 20\%$	26 Max	35 Max	1.9 Typ	2.2 Max	100KHz/0.25V
MPLZ1250H-1R5M	1.5 $\pm 20\%$	23 Max	32 Max	2.7 Typ	3.2 Max	100KHz/0.25V
MPLZ1250H-2R2M	2.2 $\pm 20\%$	15 Max	25 Max	4 Typ	5 Max	100KHz/0.25V
MPLZ1250H-3R3M	3.3 $\pm 20\%$	12 Max	23 Max	7.5 Typ	9 Max	100KHz/0.25V
MPLZ1250H-4R7M	4.7 $\pm 20\%$	11 Max	17 Max	12 Typ	14 Max	100KHz/0.25V
MPLZ1250H-5R6M	5.6 $\pm 20\%$	10.5 Max	15 Max	13 Typ	15 Max	100KHz/0.25V
MPLZ1250H-6R8M	6.8 $\pm 20\%$	10 Max	14 Max	15 Typ	18 Max	100KHz/0.25V
MPLZ1250H-8R2M	8.2 $\pm 20\%$	9 Max	13 Max	17 Typ	20 Max	100KHz/0.25V
MPLZ1250H-100M	10 $\pm 20\%$	8 Max	12 Max	22 Typ	25 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ1260H-6R8M	6.8 $\pm 20\%$	11.5 Max	15 Max	10 Typ	13.8 Max	100KHz/0.25V
MPLZ1260H-8R2M	8.2 $\pm 20\%$	11 Max	13.5 Max	13.6 Typ	16 Max	100KHz/0.25V
MPLZ1260H-100M	10 $\pm 20\%$	10 Max	12.5 Max	18 Typ	20.7 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ1260H-120M	12 $\pm 20\%$	7 Max	10 Max	20 Typ	23 Max	100KHz/0.25V
MPLZ1260H-150M	15 $\pm 20\%$	6 Max	9 Max	25 Typ	29 Max	100KHz/0.25V
MPLZ1260H-180M	18 $\pm 20\%$	5 Max	8 Max	30 Typ	35 Max	100KHz/0.25V
MPLZ1260H-220M	22 $\pm 20\%$	5 Max	7.5 Max	34 Typ	39.5 Max	100KHz/0.25V
MPLZ1260H-270M	27 $\pm 20\%$	4 Max	6.5 Max	49 Typ	56 Max	100KHz/0.25V
MPLZ1260H-330M	33 $\pm 20\%$	4 Max	6 Max	65 Typ	75 Max	100KHz/0.25V
MPLZ1260H-470M	47 $\pm 20\%$	3.5 Max	5.5 Max	80 Typ	90 Max	100KHz/0.25V
MPLZ1260H-680M	68 $\pm 20\%$	3.25 Max	4.5 Max	115 Typ	130 Max	100KHz/0.25V
MPLZ1260H-820M	82 $\pm 20\%$	3 Max	4 Max	120 Typ	140 Max	100KHz/0.25V
MPLZ1260H-101M	100 $\pm 20\%$	2.5 Max	3.5 Max	180 Typ	200 Max	100KHz/0.25V
MPLZ1260H-121M	120 $\pm 20\%$	2.3 Max	3.2 Max	210 Typ	235 Max	100KHz/0.25V
MPLZ1260H-151M	150 $\pm 20\%$	2 Max	2.7 Max	300 Typ	350 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ1770S-R47M	0.47 $\pm 20\%$	60 Max	75 Max	0.8 Typ	0.95 Max	100KHz/0.25V
MPLZ1770S-1R0M	1 $\pm 20\%$	49.5 Max	54 Max	1.2 Typ	1.45 Max	100KHz/0.25V
MPLZ1770S-1R5M	1.5 $\pm 20\%$	40 Max	40 Max	1.85 Typ	2.15 Max	100KHz/0.25V
MPLZ1770S-2R2M	2.2 $\pm 20\%$	34 Max	37 Max	2.15 Typ	2.5 Max	100KHz/0.25V
MPLZ1770S-3R3M	3.3 $\pm 20\%$	26 Max	30 Max	3.4 Typ	3.95 Max	100KHz/0.25V
MPLZ1770S-4R7M	4.7 $\pm 20\%$	24 Max	27 Max	4.12 Typ	4.72 Max	100KHz/0.25V
MPLZ1770S-5R6M	5.6 $\pm 20\%$	20 Max	23 Max	5.8 Typ	6.5 Max	100KHz/0.25V
MPLZ1770S-6R8M	6.8 $\pm 20\%$	20 Max	22 Max	6.55 Typ	7.55 Max	100KHz/0.25V
MPLZ1770S-8R2M	8.2 $\pm 20\%$	16 Max	20 Max	8.1 Typ	8.7 Max	100KHz/0.25V
MPLZ1770S-100M	10 $\pm 20\%$	14 Max	18 Max	10 Typ	12 Max	100KHz/0.25V

⊕ Electrical Characteristics :

Part No.	Inductance (μ H)	I _{rms} (Amp)	I _{sat} (Amp)	DCR (m Ω)	DCR (m Ω)	Test Frequency
MPLZ1770S-150M	15 \pm 20%	12 Max	13 Max	14.5 Typ	15 Max	100KHz/0.25V
MPLZ1770S-220M	22 \pm 20%	9.5 Max	11 Max	20.5 Typ	23 Max	100KHz/0.25V
MPLZ1770S-330M	33 \pm 20%	9 Max	10 Max	35.1 Typ	37 Max	100KHz/0.25V
MPLZ1770S-470M	47 \pm 20%	6.8 Max	7.5 Max	41 Typ	47 Max	100KHz/0.25V
MPLZ1770S-680M	68 \pm 20%	5.2 Max	6.5 Max	74 Typ	85 Max	100KHz/0.25V
MPLZ1770S-101M	100 \pm 20%	3.3 Max	5 Max	110 Typ	130 Max	100KHz/0.25V
MPLZ1770S-121M	120 \pm 20%	3 Max	5 Max	115 Typ	135 Max	100KHz/0.25V
MPLZ1770S-151M	150 \pm 20%	2.7 Max	5 Max	150 Typ	175 Max	100KHz/0.25V
MPLZ1770S-181M	180 \pm 20%	2.5 Max	4.5 Max	205 Typ	235 Max	100KHz/0.25V
MPLZ1770S-221M	220 \pm 20%	2.3 Max	4 Max	235 Typ	250 Max	100KHz/0.25V

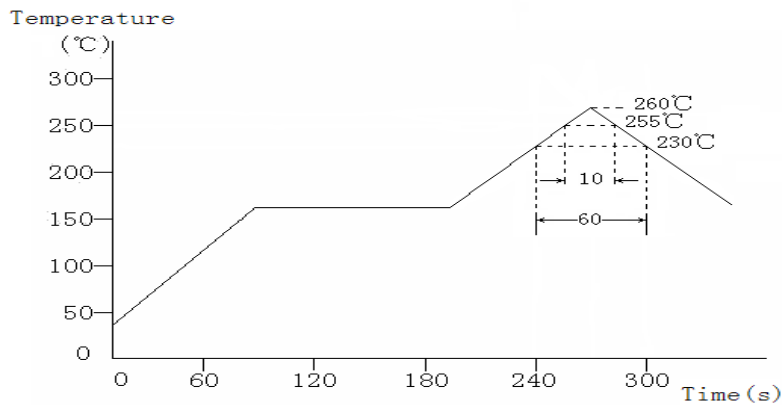
NOTE:

1. All test data is referenced to 25°C ambient.
2. I_{rms}: DC current(A) that will cause an approximate Δ T of 40°C .
3. I_{sat}: DC current(A) that will cause L_o to drop approximate 30%.
4. Operating temperature range is -40°C to 125°C .
5. The Part temperature (ambient + Δ T) should not exceed 125°C under worst case operating conditions.
6. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all effect the part temperature. Part temperature should be verified in the end application.

⊕ Mechanical Reliability

项目/Item	测试方法/Test Condition	要求/Performance
焊接能力测试 Solder Ability Test	端子浸入助焊剂然后浸入245±5°C锡炉中5秒 Terminal in flux and then into 245 + 5 °C tin furnace 5 seconds	焊料端子必须有90%以上着锡 More than 90% of terminal electrode should be covered with solder.
端子强度 Terminal Strength	将线圈的端子焊接在基板上,分别在 X,Y,Z 3 个方向施加 5N(0.5kgf),时间 10±5 秒 After soldering between copper plate and electrode. sample is pushed in three directions of X,Y and Z with force of 5N(0.5kgf) for 10±5 seconds	无电极剥离和断线 the terminal should not peel off
振动测试 Vibration	振动1小时后,电感偏差在+10%以内.在扫描振动的三个方向(10~55~10HZ)中,每一个方向都有1.5mmP-P振幅 Inductance deviation within +10% after vibration for 1 hour. In each of three orientations at Sweep vibration (10~55~10HZ) with 1.5mmP-P amplitudes.	1.电极没有分离 2.无明显的外观缺陷 1.No separation or indication of electrode. 2.No case deformation or change in appearance.
坠落试验 Drop Test	用981m/s2 (100G)将产品包装后在1米高度自然落下,有三种不同的方向 981m/s2 (100G) is used to automatically drop the product at a height of 1 meter after packaging. and there are three different directions	1.电感偏差在+10%以内 2.无明显的外观缺陷 1.The inductance deviation is within +10%. 2.No case deformation or change in appearance.
高温存储测试 High Temperature Storage Test	温度:125°C±3°C时间:500±2小时测试时间不少于1小时·不多于2小时 Temperature:125°C±3°C Time:500±2 hours. Tested not less than 1 hour, nor more than 2 hours at room	1.无明显的外观缺陷 2.感值变化不超过10% 3.直流电阻变化不超过10% 1.No case deformation or change in appearance 2.ΔL/L≤10% 3.ΔDCR/DCR≤10%
低温存储测试 Low Temperature Storage Test	温度:-40°C±3°C时间:500±2小时·测试时间不少于1小时·不多于2小时 Temperature:-40°C±3°C Time:500±2 hours. Tested not less than 1 hour, nor more than 2 hours at room.	1.无明显的外观缺陷 2.感值变化不超过10% 3.直流电阻变化不超过10% 1.No case deformation or change in appearance 2.ΔL/L≤10% 3.ΔDCR/DCR≤10%
高温湿度测试 High Temperature Humidity Test	温度:85°C±3°C·湿度:85±5% RH·测试时间:500±2小时·测试时间不少于1小时·室温下不超过2小时 Temperature:85°C±3°C. Humidity:85±5%RH Test Time:500±2 hours Tested not less than 1 hour. Nor more than 2 hours at room temperature	1.无明显的外观缺陷 2.感值变化不超过10% 3.品质因数变化不超过30% 4.直流电阻变化不超过10%. 1.No case deformation or change in appearance 2.ΔL/L≤10% 3.ΔQ/Q≤30% 4.ΔDCR/DCR≤10%
热冲击试验 存储测试 Thermal Shock Test Storage Test	从-40°C试验30分钟,然后温度冲击到125°C试验30分钟,作为一个循环,共20次周期 First-40°C for 30 Minutes, last 125°C for 30 Minutes as 1 cycle. Go through 20 cycles.	1.无明显的外观缺陷 2.感值变化不超过10% 3.直流电阻变化不超过10% 1.No case deformation or change in appearance 2.ΔL/L≤10% 3.ΔDCR/DCR≤10%

⊕ Reflow Soldering Heat Endurance

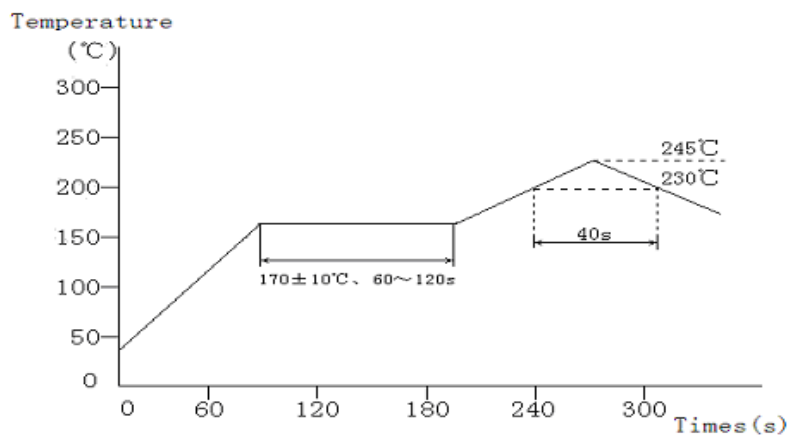


No mechanical and electrical defects are found after testing based on the above profile and keeping under the conditions of room temperature and humidity for 2 hours.

Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.

The reflow test profile may vary with the testing instruments.

⊕ Recommended Reflow Conditions

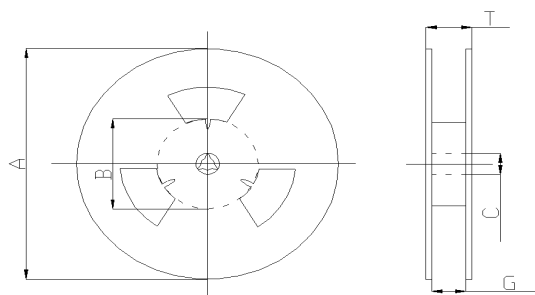


The recommended reflow profile is based on the testing instruments used. Solder ability will depend on the testing equipments, reflow conditions, testing method, etc. So it is necessary to make a confirmation of them when the reflow conditions are set up.

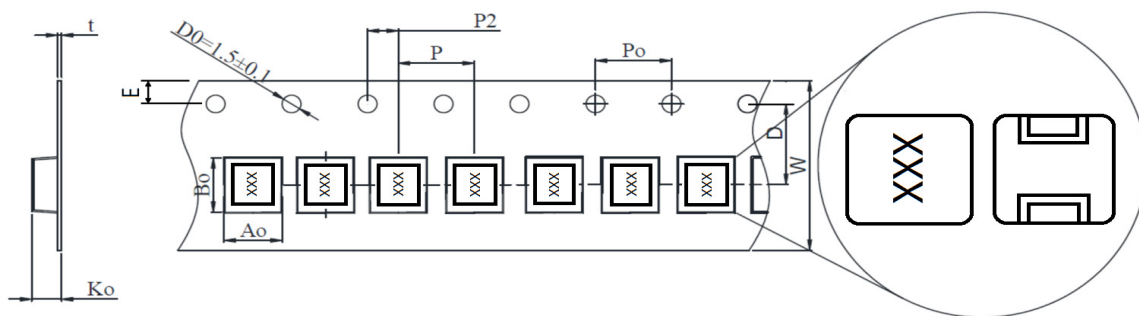
However halogen lamp shall be used, side heat will be beyond range of resistance heat, so we can't recommend it.

⊕ Reel Dimension(m/m)

Item	A	B	C	G	T
MPLZ04_H	330±1	100±1	13±1	12.5±1	14.5±2
MPLZ05_H	330±1	100±1	13±1	16.5±1	20.4±2
MPLZ06_H	330±1	100±1	13±1	16.5±1	20.4±2
MPLZ10_H	330±1	100±1	13±1	24.0±1	28.5±2
MPLZ12_H	330±1	100±1	13±1	24.0±1	28.5±2
MPLZ17_H	330±1	100±1	13±1	32.0±1	36.0±2



⊕ Taping Dimension(m/m)



Item	W	Ao	Bo	Ko	D	D0	E	P	Po	P2	t
MPLZ0420H	12±0.5	4.4±0.15	5±0.15	2.1±0.15	5.5±0.1	1.5±0.1	1.75±0.1	8±0.1	4±0.1	2±0.1	0.22±0.05
MPLZ0530H	16±0.5	5.8±0.15	6.2±0.15	3.1±0.15	7.5±0.1	1.5±0.1	1.75±0.1	8±0.1	4±0.1	2±0.1	0.35±0.05
MPLZ0630H	16±0.5	7.2±0.15	8±0.15	3.1±0.15	7.5±0.1	1.5±0.1	1.75±0.1	12±0.15	4±0.1	2±0.1	0.35±0.05
MPLZ0650H	16±0.5	7.2±0.15	8±0.15	5.1±0.15	7.5±0.1	1.5±0.1	1.75±0.1	12±0.15	4±0.1	2±0.1	0.4±0.05
MPLZ1040H	24±0.5	10.8±0.15	10.8±0.15	4.1±0.15	11.5±0.1	1.5±0.1	1.75±0.1	16±0.15	4±0.1	2±0.1	0.4±0.05
MPLZ1050H	24±0.5	10.8±0.15	10.8±0.15	5.1±0.15	11.5±0.1	1.5±0.1	1.75±0.1	16±0.15	4±0.1	2±0.1	0.4±0.05
MPLZ1235H	24±0.5	13.3±0.15	14.2±0.15	4.1±0.15	11.5±0.1	1.5±0.1	1.75±0.1	16±0.15	4±0.1	2±0.1	0.4±0.05
MPLZ1250H	24±0.5	13.3±0.15	14.2±0.15	5.1±0.15	11.5±0.1	1.5±0.1	1.75±0.1	16±0.15	4±0.1	2±0.1	0.4±0.05
MPLZ1260H	24±0.5	13.3±0.15	14.2±0.15	6.1±0.15	11.5±0.1	1.5±0.1	1.75±0.1	16±0.15	4±0.1	2±0.1	0.4±0.05
MPLZ1770H	32±0.5	17.2±0.15	18±0.15	7.1±0.15	14.2±0.1	1.5±0.1	1.75±0.1	24±0.15	4±0.1	2±0.1	0.4±0.05

⊕ Packaging Carton

Item	Reel Packing Unit	Inner Box Packing Unit	Carton Packing Unit
MPLZ0420H	3000 PCS / Reel	12000 PCS / Box	24000 PCS / Box
MPLZ0530H	1500 PCS / Reel	6000 PCS / Box	18000 PCS / Box
MPLZ0630H	1500 PCS / Reel	4500 PCS / Box	9000 PCS / Box
MPLZ0650H	1000 PCS / Reel	3000 PCS / Box	6000 PCS / Box
MPLZ1040H	800 PCS / Reel	1600 PCS / Box	3200 PCS / Box
MPLZ1050H	800 PCS / Reel	1600 PCS / Box	3200 PCS / Box
MPLZ1235H	500 PCS / Reel	1000 PCS / Box	2000 PCS / Box
MPLZ1250H	500 PCS / Reel	1000 PCS / Box	2000 PCS / Box
MPLZ1260H	500 PCS / Reel	1000 PCS / Box	2000 PCS / Box
MPLZ1770H	250 PCS / Reel	500 PCS / Box	1000 PCS / Box

