PRODUCT SPECIFICATION

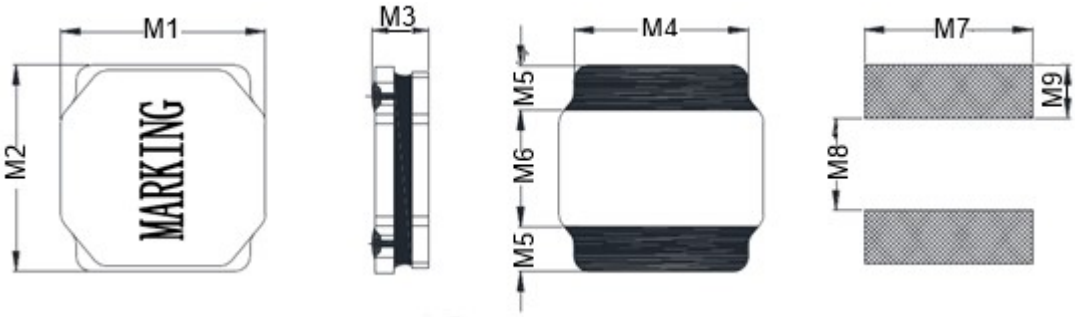
DOCUMENT NO. ENS000153720				
DESCRIPTION	**DRAWN BY**	**DESIGNED BY**	**CHECKED BY**	**APPROVED BY**
CSME0412D-XXXX-LRH	Zhouling Tang	Shengjun Zhou	Shengjun Zhou	Dick Wang

1. PART NUMBER IDENTIFICATION

CSME 0412 D - □□□ □ - LRH

- LRH: RoHS + H.F.
- □: TOLERANCE
- □□□: INDUCTANCE
- D: TERMINAL TYPE
- 0412: DIMENSION
- CSME: PRODUCT CODE

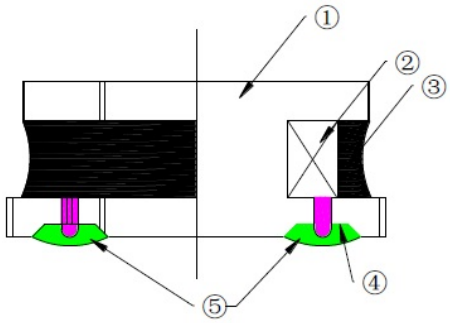
2. MECHANICAL DIMENSION



UNIT: mm

	DIM.	TOL.
M1	4.0	±0.2
M2	4.0	±0.2
M3	1.2	MAX.
M4	3.3	±0.2
M5	0.95	±0.2
M6	2.1	REF.
M7	3.7	REF.
M8	1.9	REF.
M9	1.1	REF.

3. STRUCTURE



4. MATERIAL LIST

NO	PARTS	MATERIAL	Ceaiva P/N
1	DRUM CORE	Ni-Zn FERRITE CORE	MT CY
2	WIRE	POLYURETHANE ENAMELED COPPER WIRE	YLSL
3	ADHESIVE	EPOXY RESIN MAGNETIC POWDER	
4	PLATING ELECTRODES	PLATING: Ag 10-20 um Ni 1-3 um Sn 3-7 um	
5	OUTER ELECTRODES	TOP SURFACE SOLDER COATING Sn99%、Ag0.3%、Cu0.7%	YX

5. ELECTRICAL SPECIFICATION

Part number	Marking	Inductance (μH)	Inductance Tolerance	DC Resistance (Ω)		Isat (A)		Irms (A)		SRF (MHz)
				Max.	Typ.	Max.	Typ.	Max.	Typ.	MIN.
CSME0412D-1R0N-LRH	1R0	1.0	±30%	0.055	0.042	2.80	3.00	2.00	2.30	65
CSME0412D-1R5N-LRH	1R5	1.5	±30%	0.065	0.051	2.20	2.35	1.80	2.00	51
CSME0412D-2R2M-LRH	2R2	2.2	±20%	0.100	0.075	1.76	2.00	1.32	1.90	50
CSME0412D-3R3M-LRH	3R3	3.3	±20%	0.100	0.075	1.35	1.65	1.32	1.90	38
CSME0412D-4R7M-LRH	4R7	4.7	±20%	0.163	0.125	1.15	1.50	1.00	1.40	33
CSME0412D-6R8M-LRH	6R8	6.8	±20%	0.228	0.175	1.15	1.30	0.85	1.10	26
CSME0412D-100M-LRH	100	10	±20%	0.234	0.180	0.85	0.95	0.80	1.00	20
CSME0412D-150M-LRH	150	15	±20%	0.400	0.310	0.68	0.80	0.65	0.80	19
CSME0412D-180M-LRH	180	18	±20%	0.550	0.430	0.60	0.75	0.55	0.80	16
CSME0412D-220M-LRH	220	22	±20%	0.690	0.530	0.50	0.70	0.49	0.75	15
CSME0412D-330M-LRH	330	33	±20%	1.00	0.780	0.50	0.60	0.42	0.52	12
CSME0412D-470M-LRH	470	47	±20%	1.43	1.10	0.35	0.45	0.37	0.50	9

□TOLERANCE：M:±20%、N:±30%

1. Inductance: @100KHz,1.0V
2. Test Machine: HIOKI3532-50 OR EQUIVALENT
3. DC Resistance: HIOKI 3540 OR EQUIVALENT
4. ISAT / IRISE: HP4284+42841A OR EQUIVALENT
5. Isat(A): DC Saturation Current that will cause initial inductance to drop approximately 30% max.
6. Irise(A): DC Current that will cause an approximate ΔT of 40 ℃.
7. MSL: LEVEL 1.

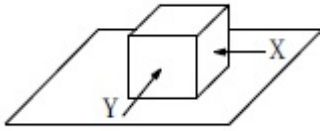
6. RELIABILITY PERFORMANCE

6-1.Storage Temperature range：-40℃～ ＋105℃

6-2.Operating temperature range：-40℃ ～ ＋125℃ (Including coil's self temperature rise)

6-3.External appearance：No external defects can be found in the visual inspection.

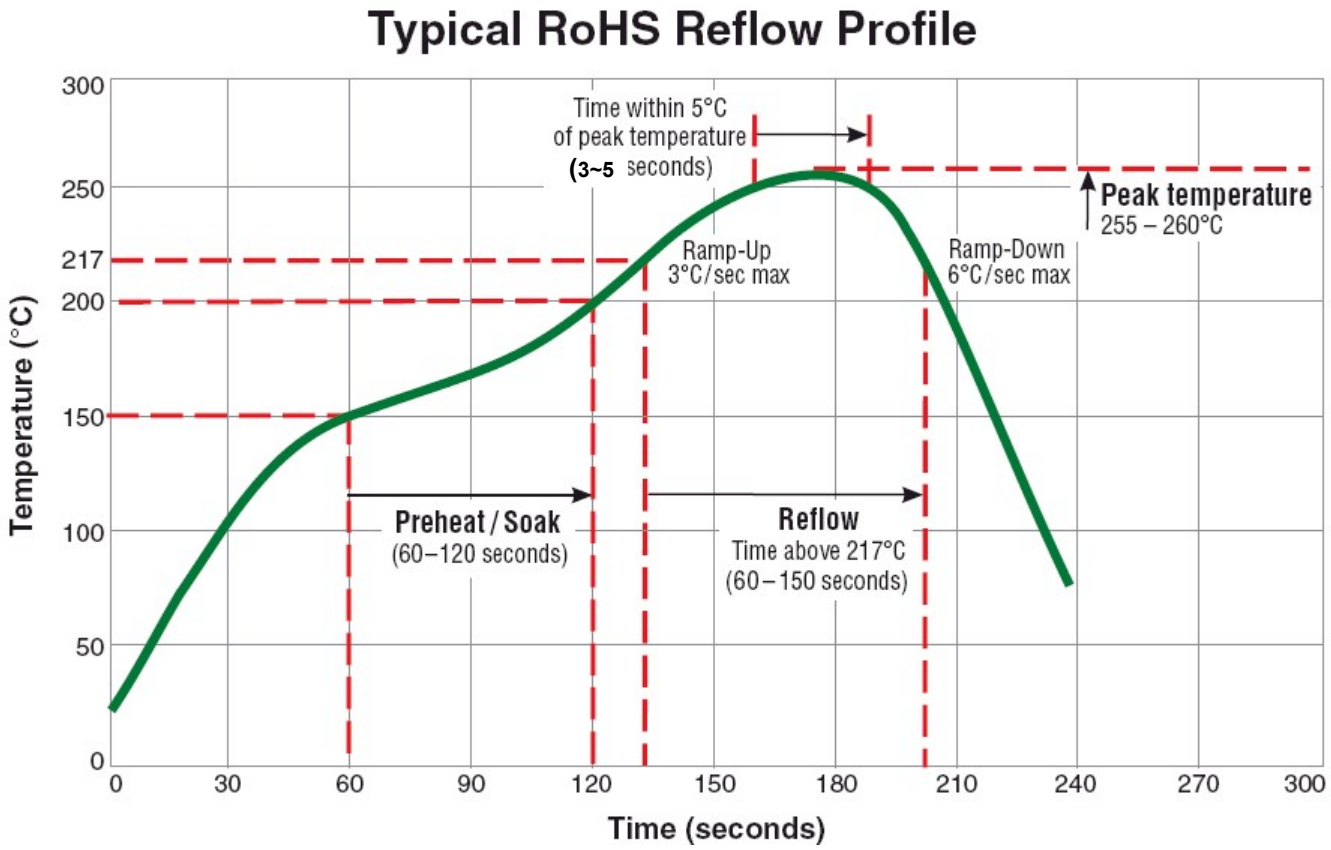
6-4.Electrode strength：No electrode detachment should be found when the device is pushed in two directions of X and Y with the force of 10.0N for 10±2 seconds after soldering between copper plate and the electrodes. (Refer to figure at right)



6-5.Vibration test：Inductance deviation is within ±10.0% after 1 hour sweeping vibration in each three directions, namely, forward and backward, up and down,right and left. The frequency is 10～55～10Hz and the amplitude of 1 minute cycle is 1.5mm PP.

6-6.Humidity test：Inductance deviation is within ±5.0% after 96±4 hours test under the condition of relative humidity of 90～95% and temperature of 60±2℃,and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

7. REFLOW CHART

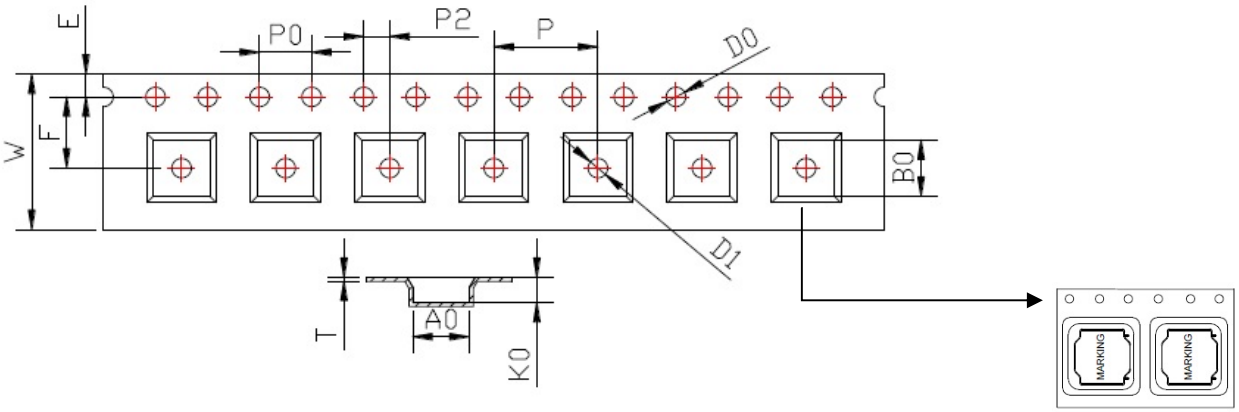


8. PACKING

8-1 OUTER PACKING

4.5KPCS/REEL 13.5KPCS/INNER BOX 40.5KPCS/OUTER BOX

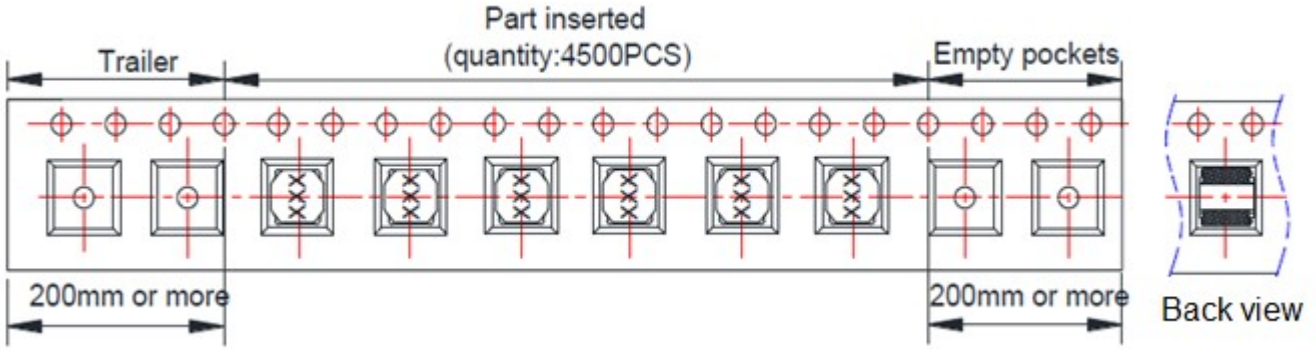
8-2 CARRIER TAPE DIMENSIONS



UNIT : mm

ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.0	4.3	4.3	1.6	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

8-3 TAPING DIMENSIONS



8-4 REEL DIMENSIONS