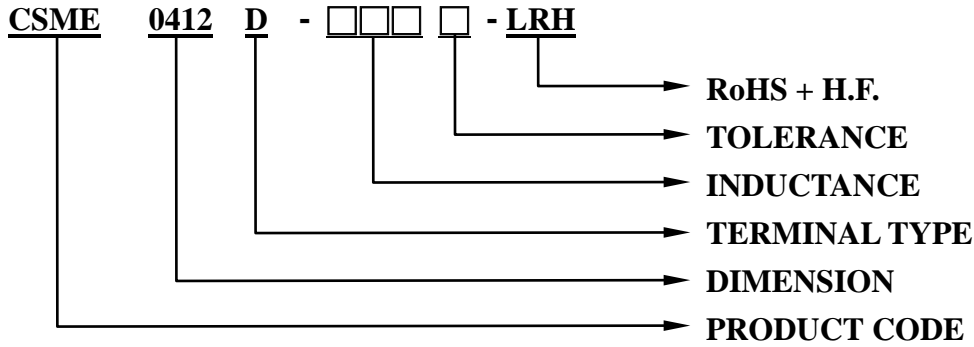


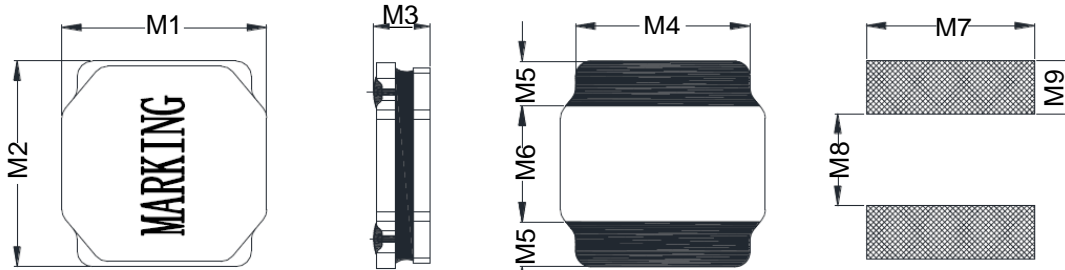
SPECIFICATION FOR APPROVAL

※This is a RoHS and REACH compliant product whose related documents are available on request.
 ※Graphic is only for dimensionally application.

1. PART NUMBER IDENTIFICATION



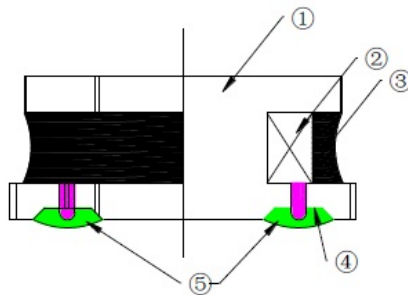
2. MECHANICAL DIMENSION



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	Ceaiya P/N
1	Drum Core	Ni-Zn Ferrite Core.	TZD、DYG
2	Wire	Polyurethane enameled copper wire.	YLSL
3	Adhesive	Epoxy Resin Magnetic Powder	
4	Plating Electrodes	Plating: Ag 10-20 μm Ni 1-3 μm Sn 3-7 μm	
5	Outer Electrodes	Top surface solder coating Sn99%、Ag0.3%、Cu0.7%	YX

SPECIFICATION FOR APPROVAL

5. ELECTRICAL SPECIFICATION

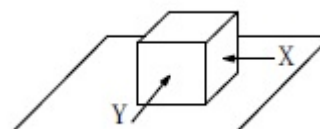
Part number	Marking	Inductance (μ H)	Inductance Tolerance	DC Resistance (Ω)		Isat (A)		Irms (A)	
				Max.	Typ.	Max.	Typ.	Max.	Typ.
CSME0412D-1R0N-LRH	1R0	1.0	$\pm 30\%$	0.055	0.042	2.80	3.00	2.00	2.30
CSME0412D-1R5M-LRH	1R5	1.5	$\pm 30\%$	0.065	0.051	2.20	2.35	1.80	2.00
CSME0412D-2R2M-LRH	2R2	2.2	$\pm 20\%$	0.100	0.075	1.76	2.00	1.32	1.90
CSME0412D-3R3M-LRH	3R3	3.3	$\pm 20\%$	0.100	0.075	1.35	1.65	1.32	1.90
CSME0412D-4R7M-LRH	4R7	4.7	$\pm 20\%$	0.163	0.125	0.15	1.50	1.00	1.40
CSME0412D-5R6M-LRH	5R6	5.6	$\pm 20\%$	0.185	0.150	1.00	1.60	1.00	1.20
CSME0412D-6R8M-LRH	6R8	6.8	$\pm 20\%$	0.228	0.175	1.15	1.30	0.85	1.10
CSME0412D-100M-LRH	100	10	$\pm 20\%$	0.340	0.250	0.85	0.95	0.80	1.00
CSME0412D-150M-LRH	150	15	$\pm 20\%$	0.400	0.310	0.68	0.80	0.65	0.80
CSME0412D-180M-LRH	180	18	$\pm 20\%$	0.550	0.430	0.60	0.75	0.55	0.80
CSME0412D-220M-LRH	220	22	$\pm 20\%$	0.690	0.530	0.50	0.70	0.49	0.75
CSME0412D-330M-LRH	330	33	$\pm 20\%$	1.00	0.780	0.50	0.60	0.42	0.52
CSME0412D-470M-LRH	470	47	$\pm 20\%$	1.43	0.10	0.35	0.45	0.37	0.50

Note:

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 °C.
7. MSL: LEVEL 1.

6. RELIABILITY PERFORMANCE

- 6-1.Storage Temperature range : $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- 6-2.Operating temperature range : $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (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)

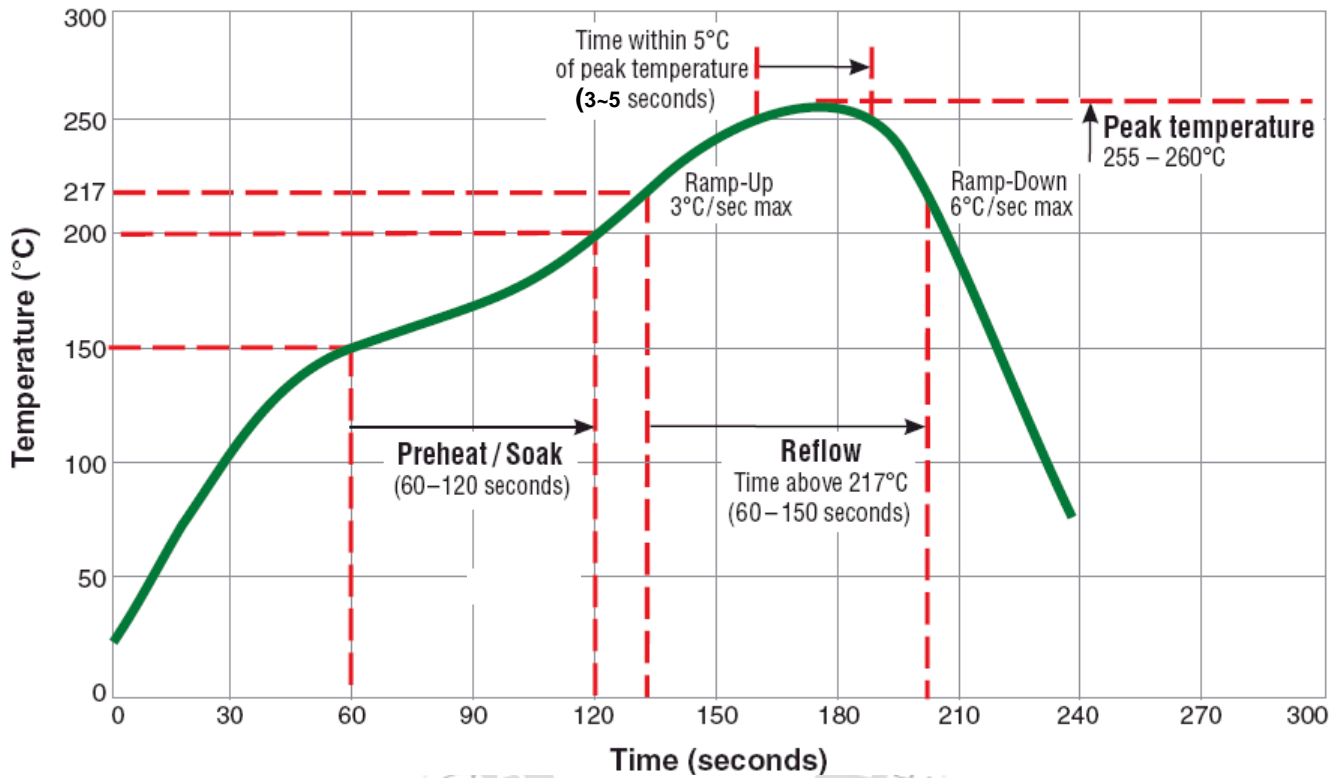


- 6-5.Vibration test : Inductance deviation is within $\pm 10.0\%$ after 1 hour sweeping vibration in each three directions, namely, forward and backward, up and down, right and left. The frequency is 10 ~ 55 ~ 10Hz and the amplitude of 1 minute cycle is 1.5mm PP.
- 6-6.Humidity test : Inductance deviation is within $\pm 5.0\%$ after 96 ± 4 hours test under the condition of relative humidity of 90 ~ 95% and temperature of $60 \pm 2^{\circ}\text{C}$, and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.

SPECIFICATION FOR APPROVAL

7. REFLOW PROFILE

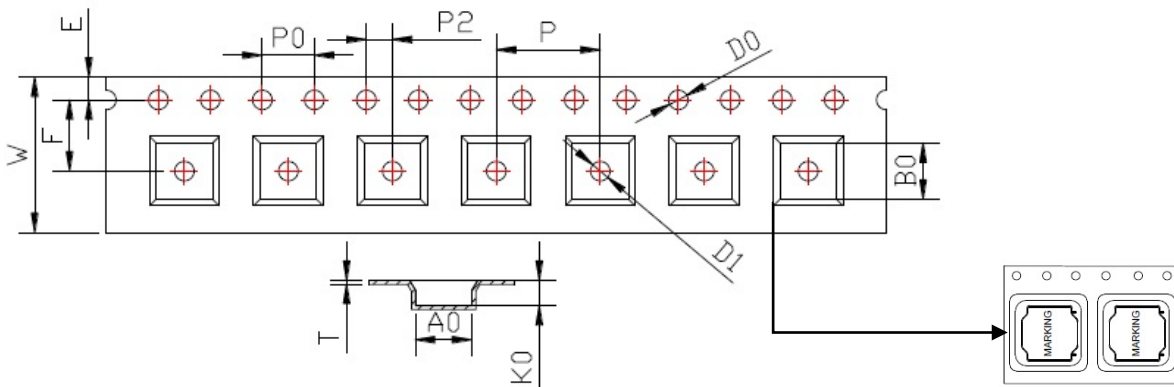
Typical RoHS Reflow Profile



SPECIFICATION FOR APPROVAL

8. PACKING

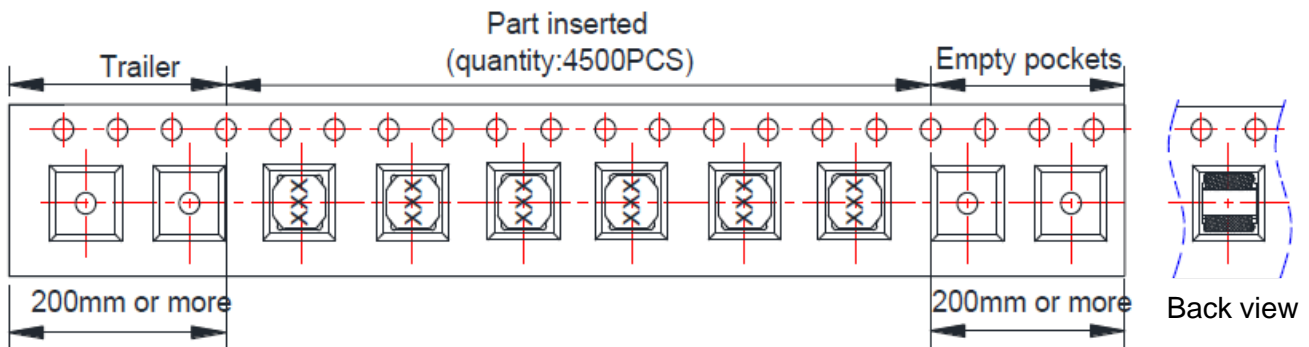
8-1 CARRIER TAPE DIMENSIONS



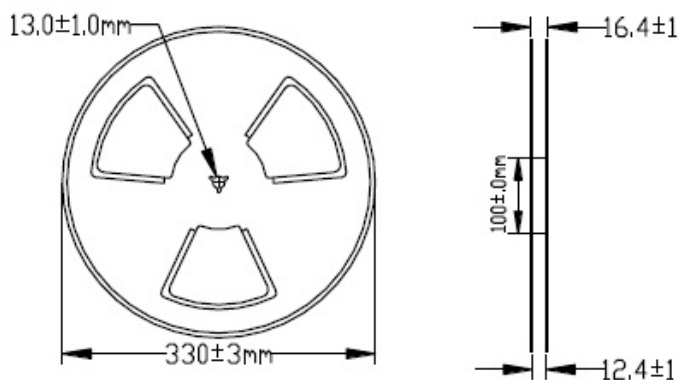
UNIT : mm

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

8-2 TAPING DIMENSIONS



8-3 REEL DIMENSIONS



8-4 PACKAGE SPECIFICATION

- 4.5KPCS/Reel
- 13.5KPCS/Inner Box
- 40.5KPCS/Outer Box