



PRODUCT SPECIFICATION

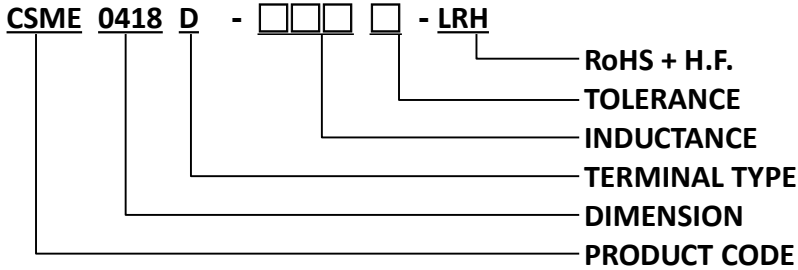
DOCUMENT NO. ENS000152260

DESCRIPTION	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
CSME0418D-XXXX-LRH	Zhuoling Tang	Hongyu Yi	Shengjun Zhou	Dick Wang

ENGINEERING CHANGE NOTICE – RECORD

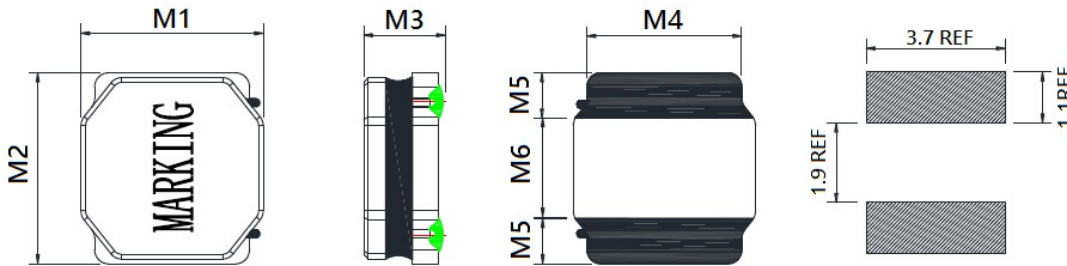
REVISION NO.	REVISION DESCRIPTION	AUTHOR	DATE	REMARK
A0	Change INPAQ form REV NO. FROM A TO A0.	<i>Shengjun Zhou</i>	2021/6/22	
A1	Change from REV NO.FROM A0 TO A1	<i>Shengjun Zhou</i>	2021/8/17	
A2	Add self-resonant frequency and frequency characteristic curve according to customer's requirement	<i>Shengjun Zhou</i>	2021/12/30	
A3	1.Change from outsourcing products to own products 2.Modify the test instrument to the corresponding instrument in the factory 3.Change M5 size from 1.0 ± 0.2 to 1.1 ± 0.2	Hongyu Yi	2022/4/11	

1. PART NUMBER IDENTIFICATION



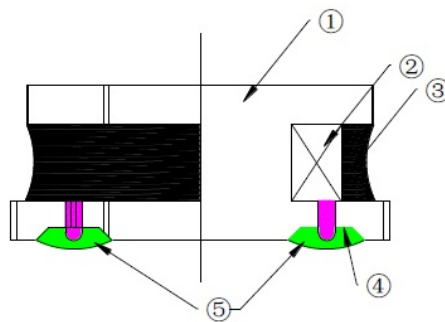
2. MECHANICAL DIMENSION

UNIT: mm



	DIM.	TOL.
M1	4.0	±0.2
M2	4.0	±0.2
M3	1.85	MAX.
M4	3.3	±0.2
M5	1.1	±0.2
M6	2.1	REF

3. STRUCTURE



4. MATERIAL LIST

NO	PARTS	MATERIAL
1	DRUM CORE	Ni-Zn FERRITE CORE
2	WIRE	POLYURETHANE ENAMELED COPPER WIRE
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%

5. ELECTRICAL SPECIFICATION

Part number	Mark	Inductance (uH)	Inductance Tolerance	DC Resistance (mΩ) ±20%.	Isat (A) MAX.	Irms (A) MAX.
CSME0418D-1R0□-LRH	1R0	1.0	N	27	4.00	3.20
CSME0418D-1R5□-LRH	1R5	1.5	N	37	3.30	2.40
CSME0418D-2R2□-LRH	2R2	2.2	M	42	3.00	2.20
CSME0418D-3R3□-LRH	3R3	3.3	M	55	2.30	2.00
CSME0418D-4R7□-LRH	4R7	4.7	M	70	2.00	1.70
CSME0418D-6R8□-LRH	6R8	6.8	M	98	1.60	1.45
CSME0418D-100□-LRH	100	10	M	150	1.30	1.20
CSME0418D-150□-LRH	150	15	M	210	1.10	0.85
CSME0418D-220□-LRH	220	22	M	290	0.90	0.72
CSME0418D-330□-LRH	330	33	M	480	0.70	0.55
CSME0418D-470□-LRH	470	47	M	755	0.65	0.60
CSME0418D-101□-LRH	101	100	M	1450	0.42	0.28
CSME0418D-221□-LRH	221	220	M	3800	0.28	0.20

□ TOLERANCE : M:±20%、N:±30%

※ INDUCTANCE : @100KHz,1.0V

※ TEST MACHINE : CH3302 OR EQUIVALENT

※ DC RESISTANCE : CH16502 OR EQUIVALENT

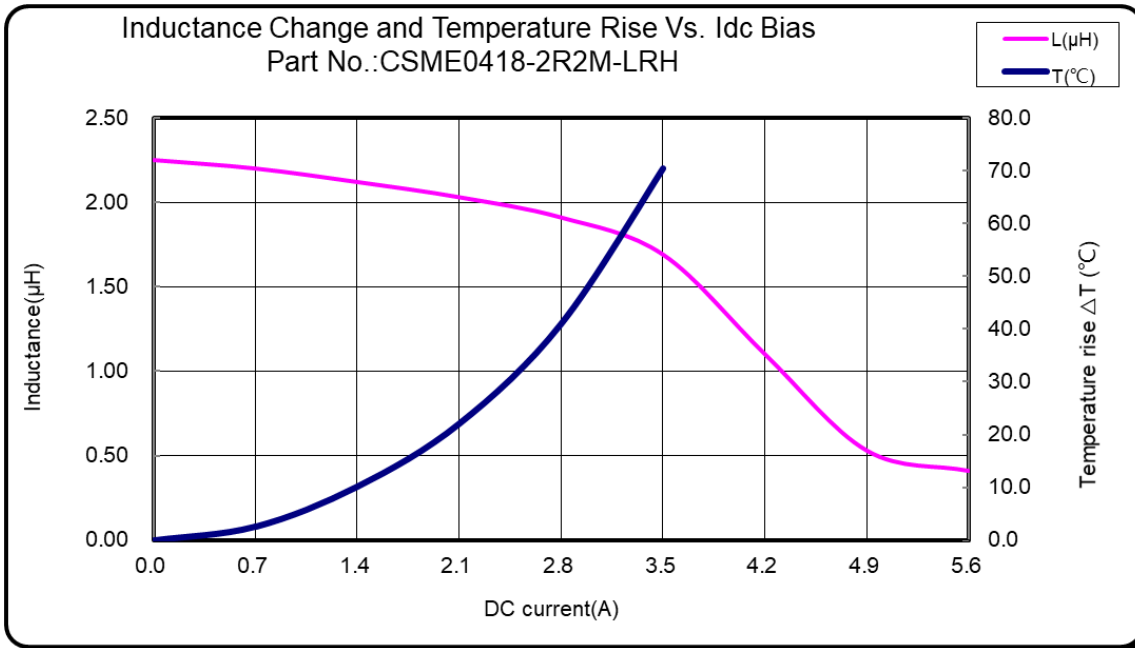
※ ISAT / IRISE : CH3302+CH1320 OR EQUIVALENT

※ OPERATING TEMPERATURE : -40°C ~ +125°C.

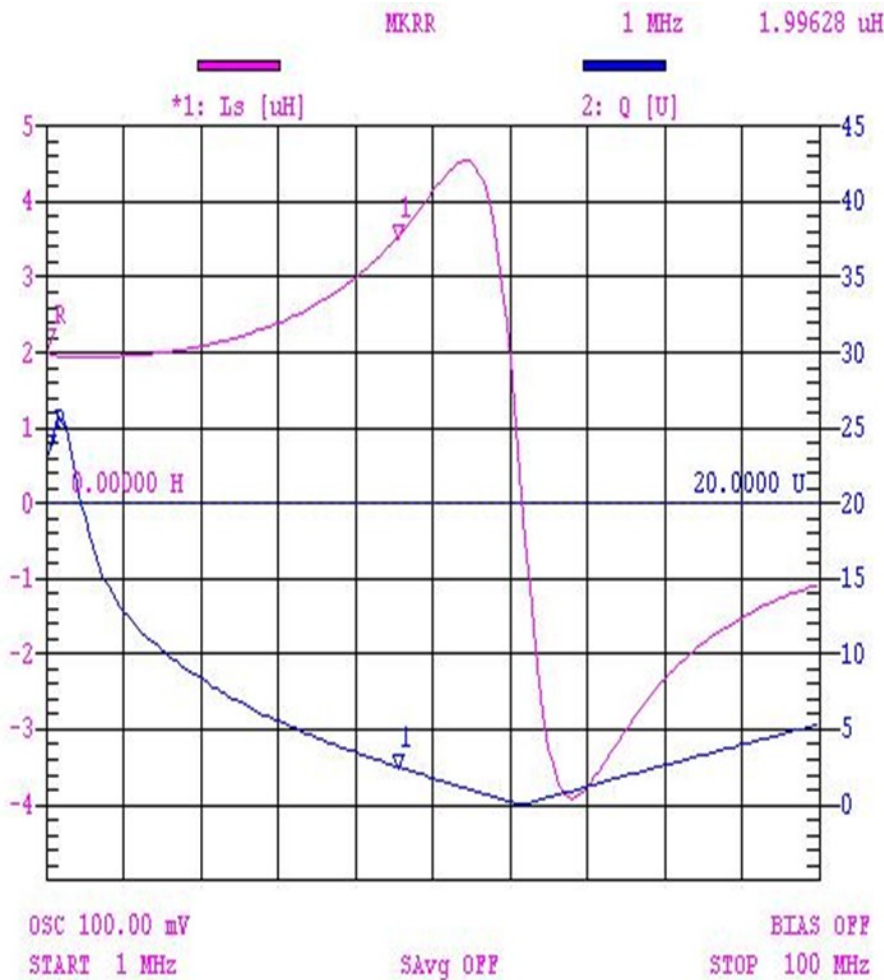
※ INDUCTANCE DROPS NO MORE THAN 30% OF INITIAL VALUE AT ISAT.

※ TEMPERATURE RISES : Δ t< 40°C AT IRMS.

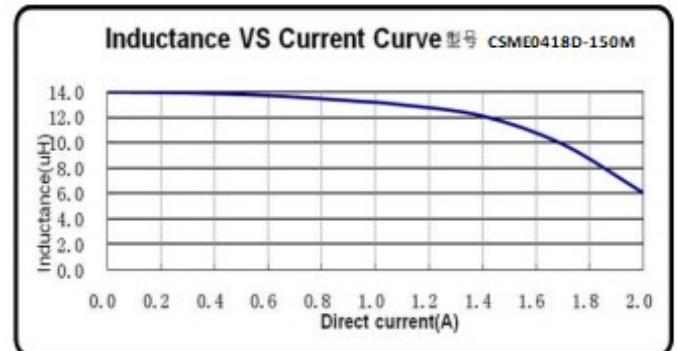
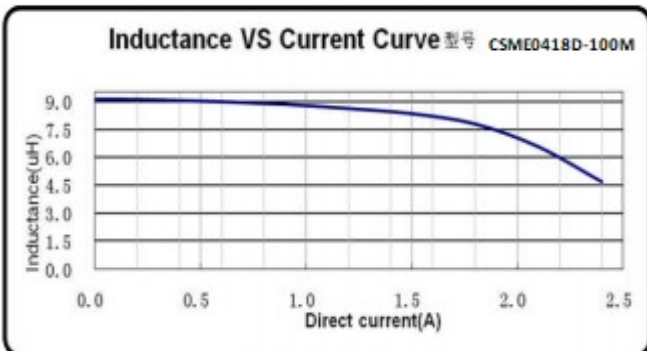
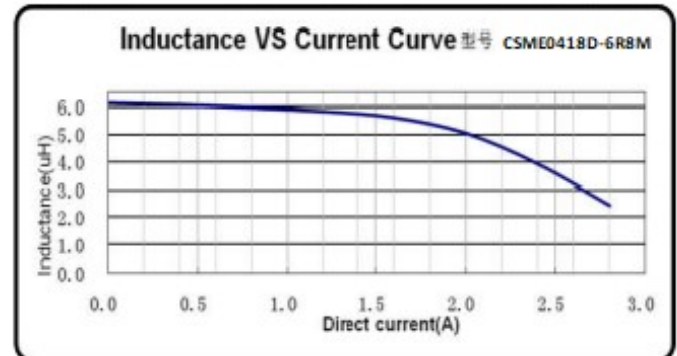
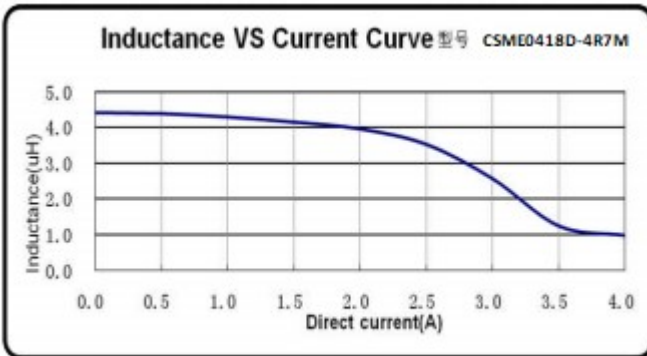
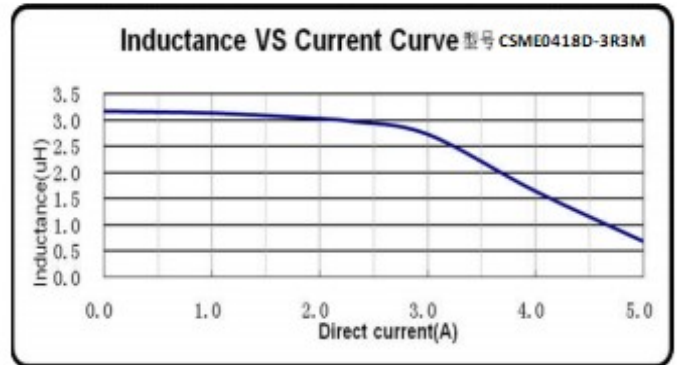
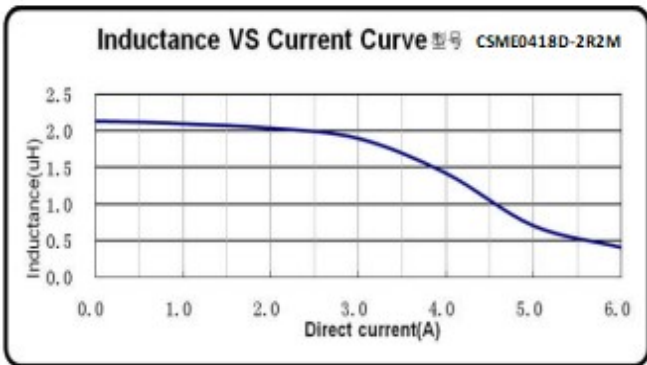
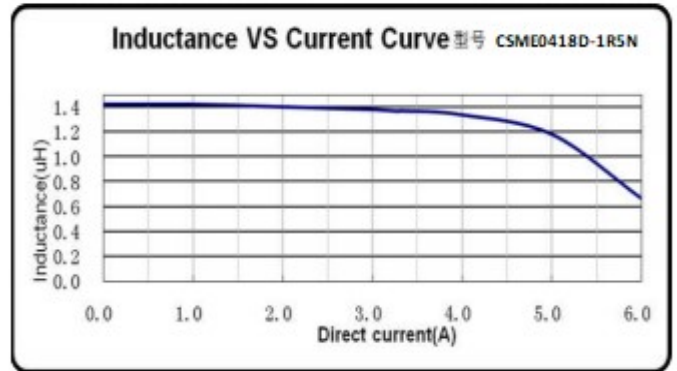
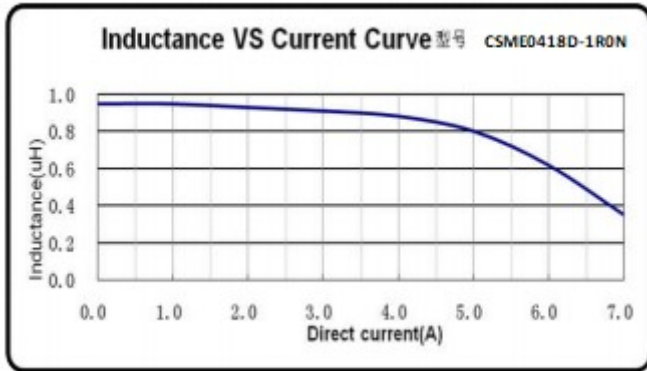
※ MSL : LEVEL 1.

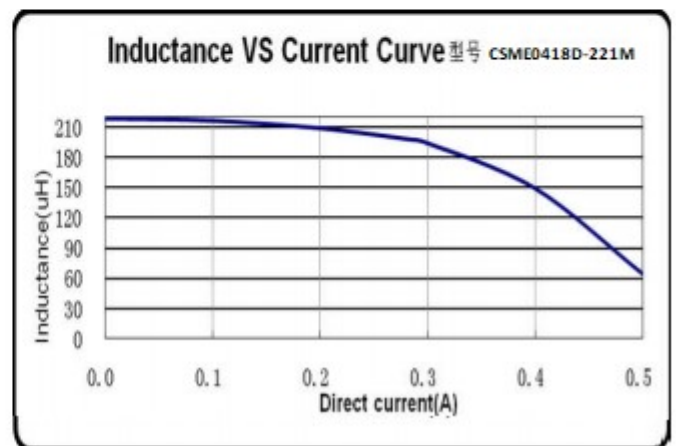
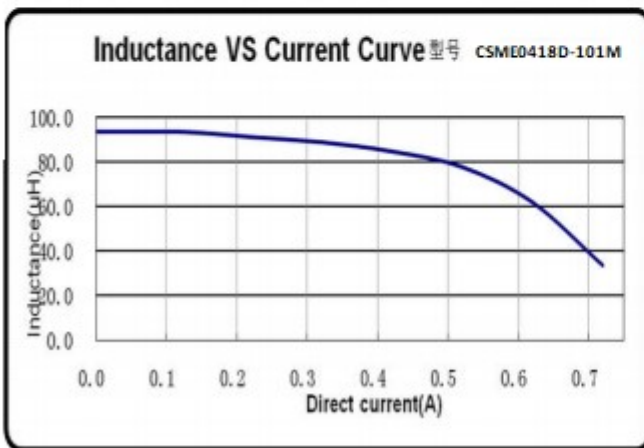
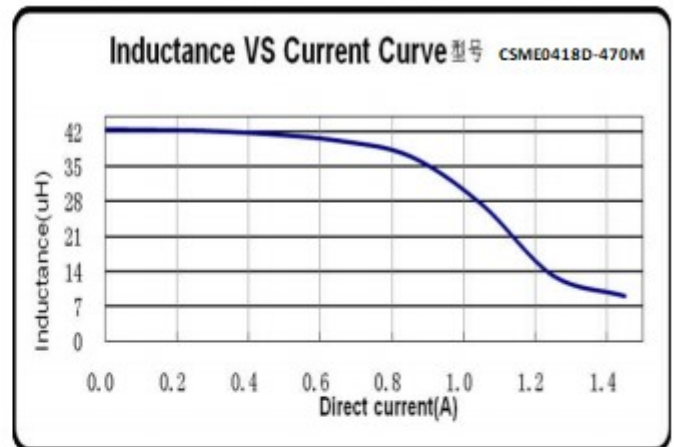
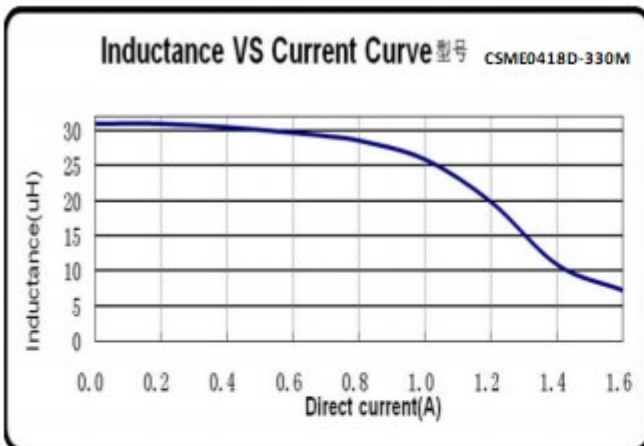
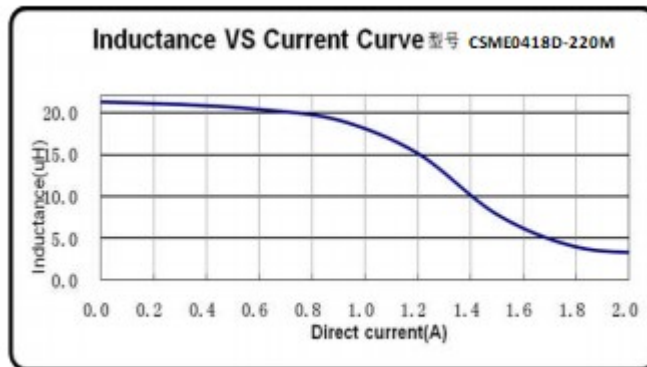


PART NO:CSME0418-2R2M-LRH

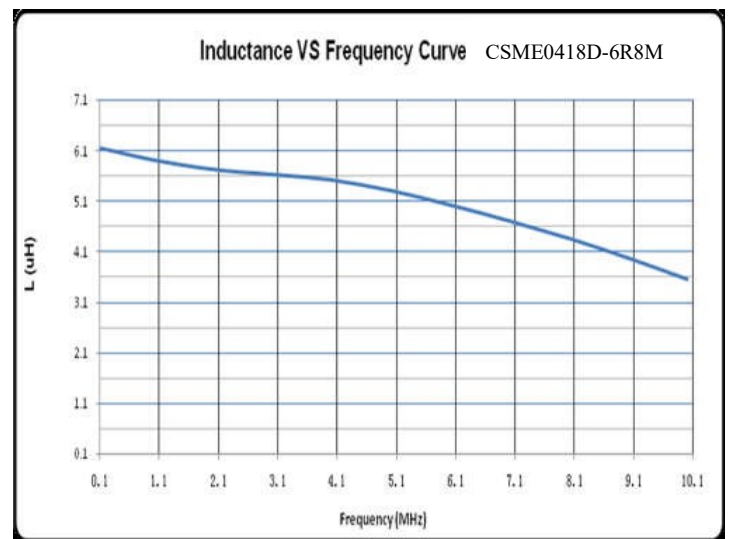
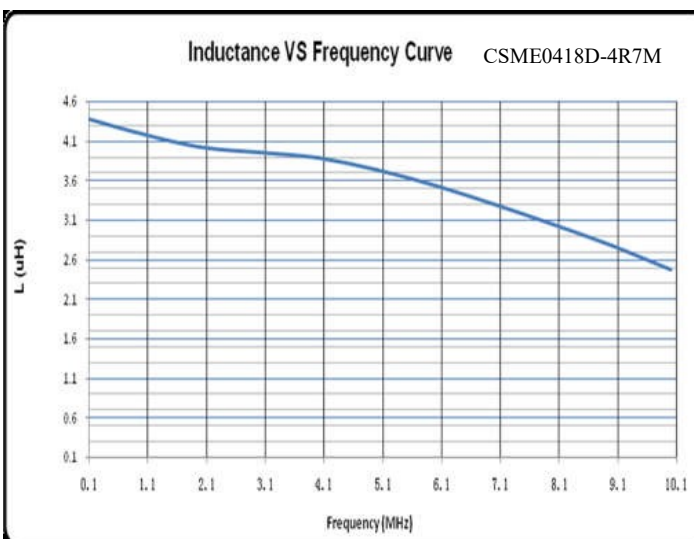
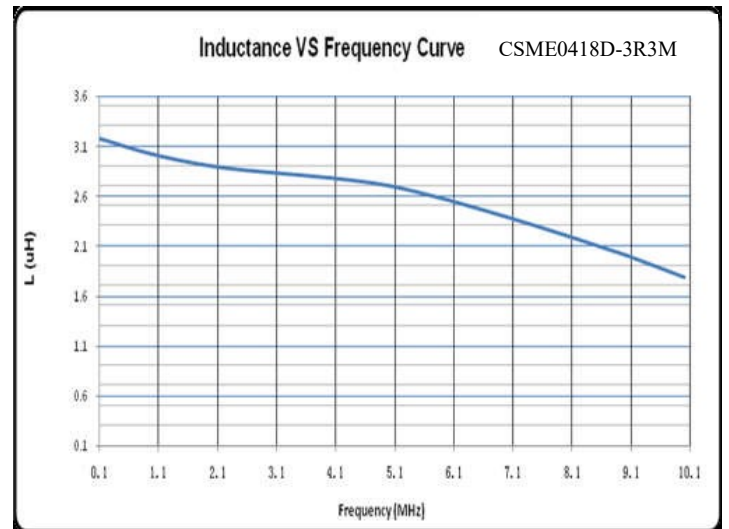
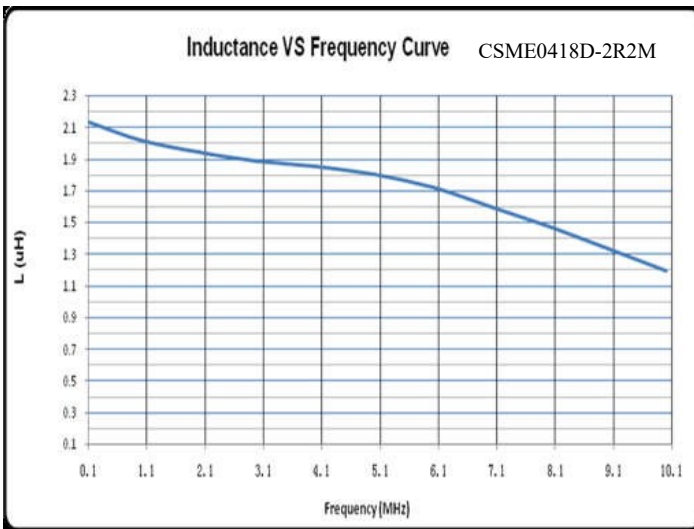
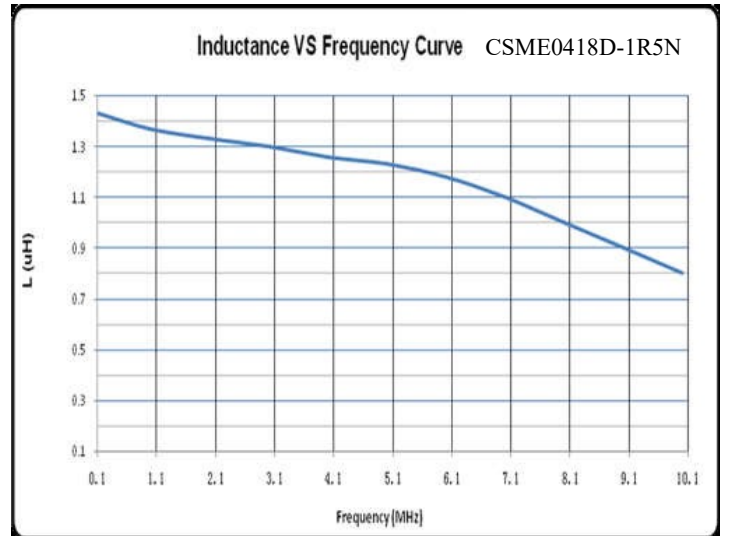
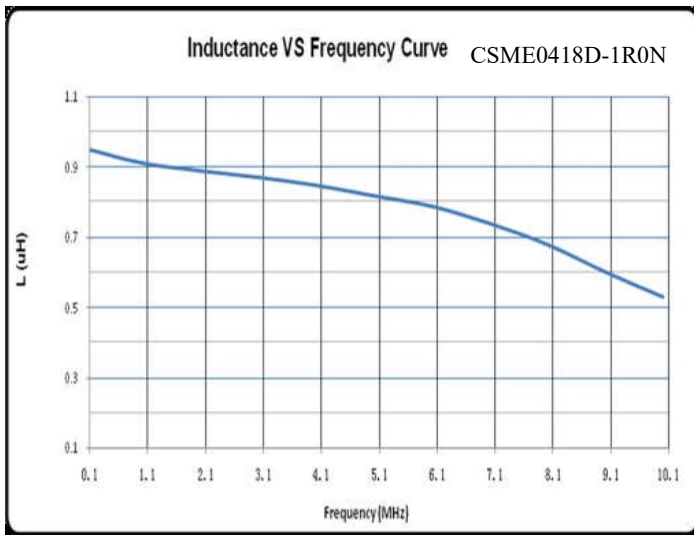


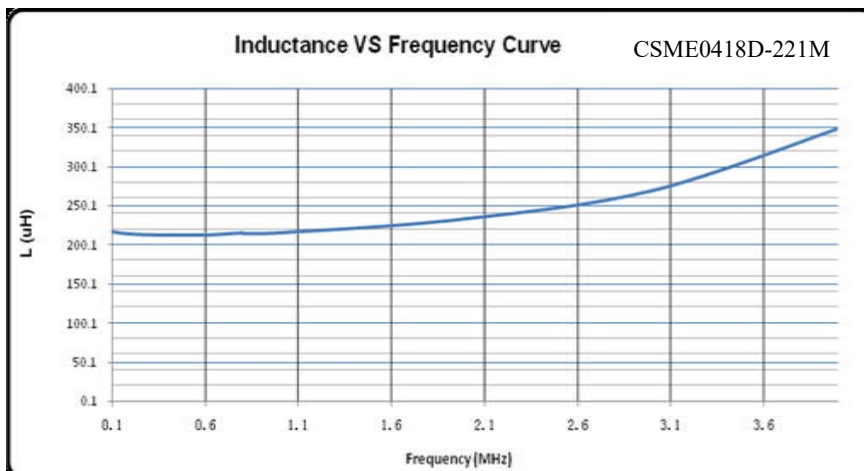
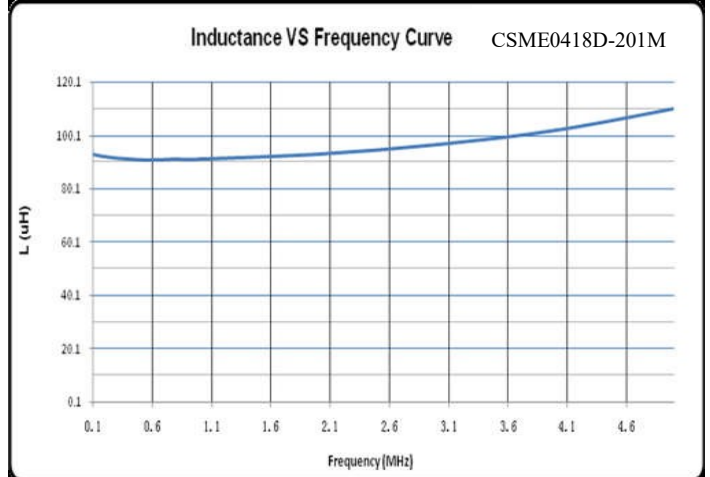
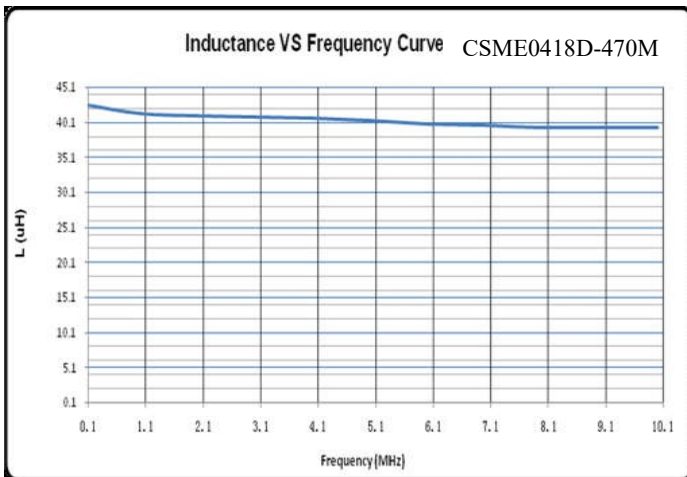
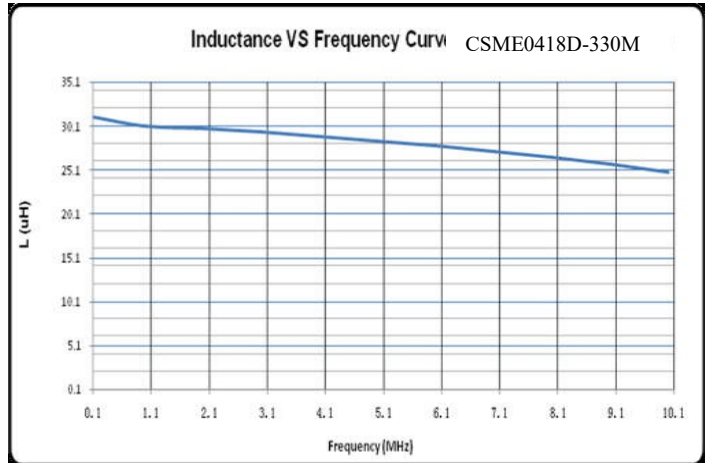
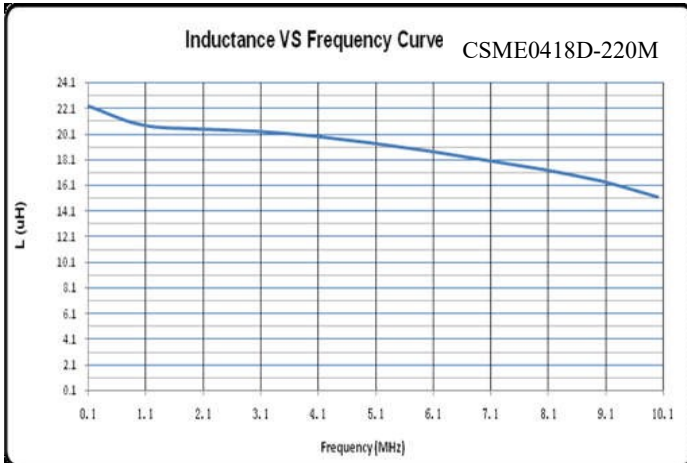
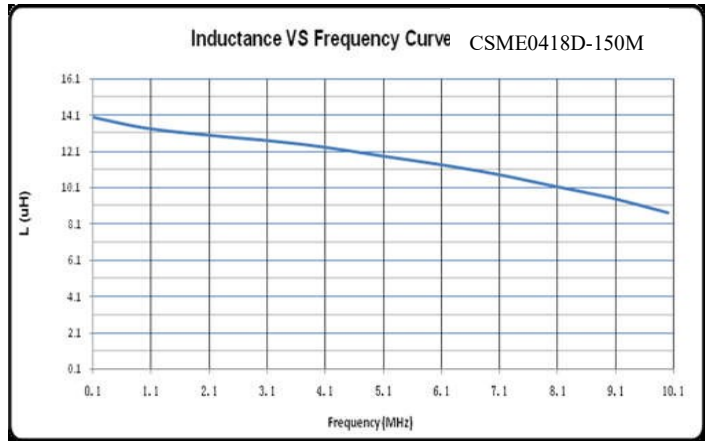
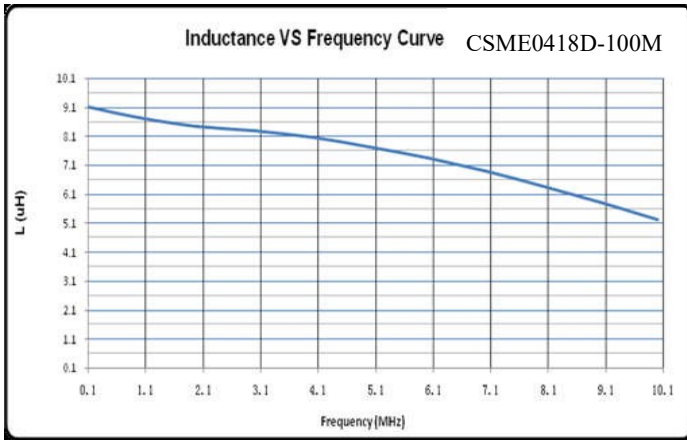
6. Inductance VS Current Curve:



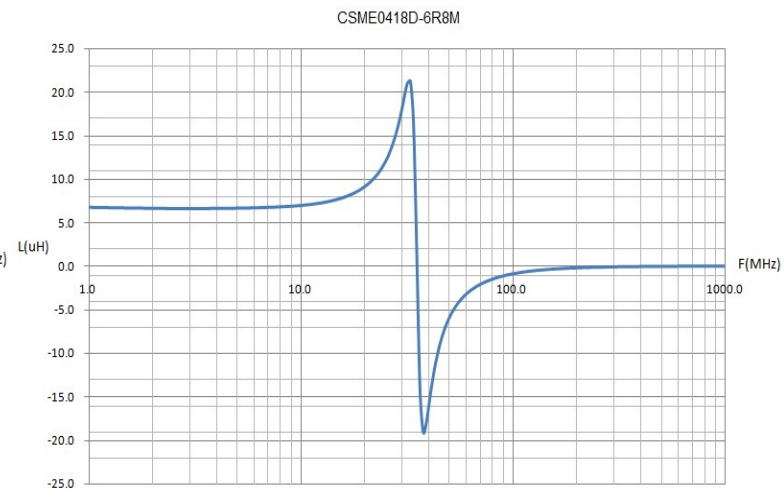
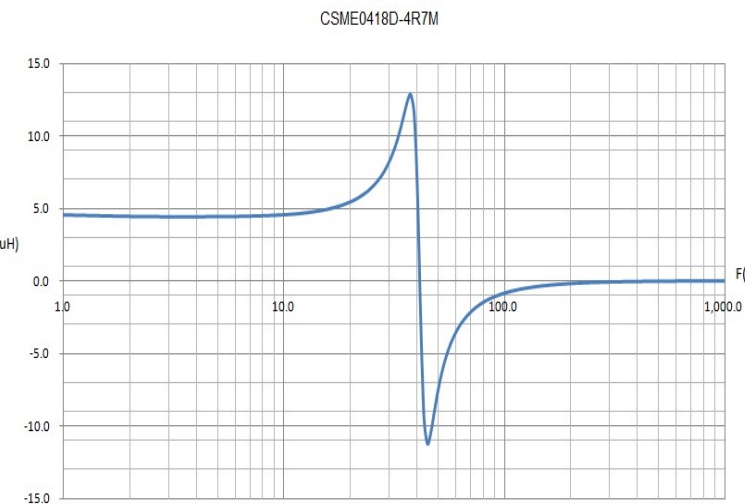
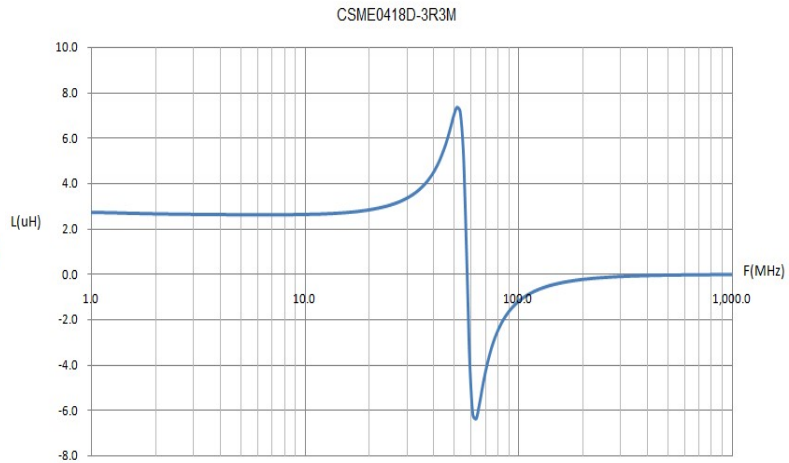
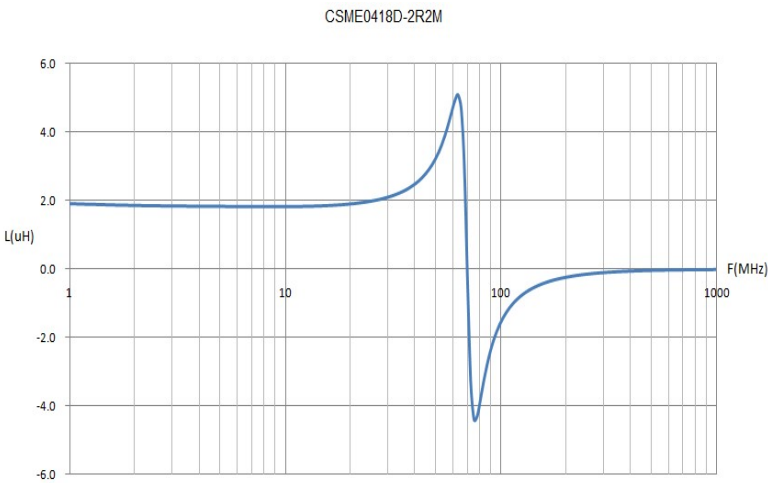
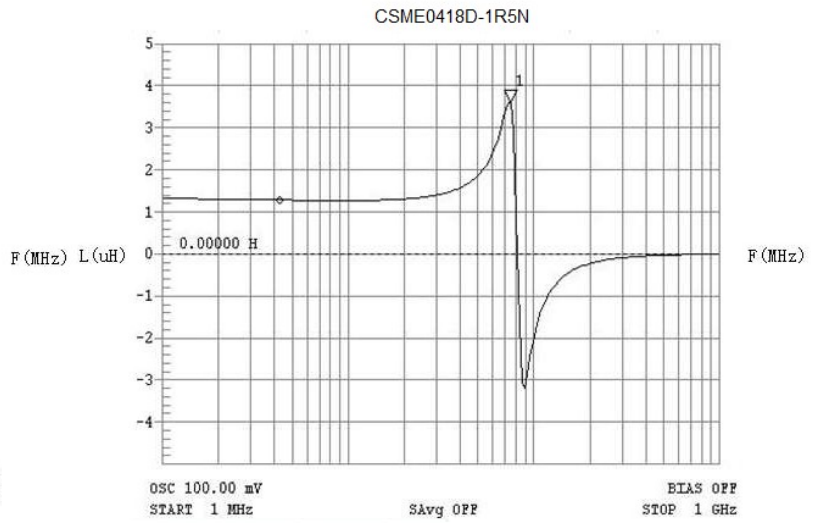
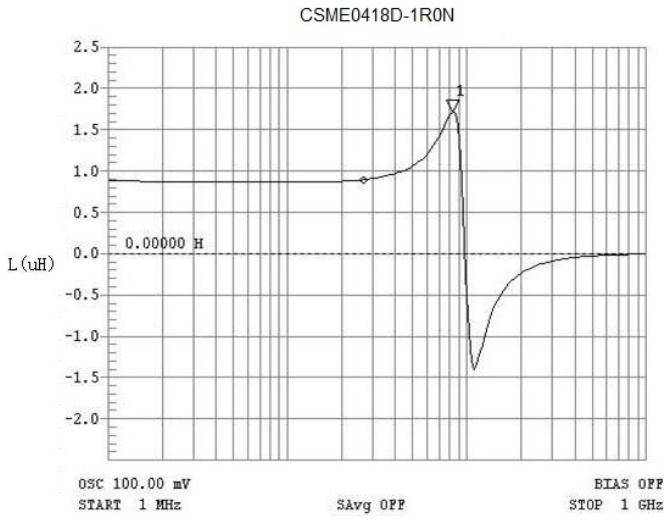


7. Inductance VS Frequency Curve:

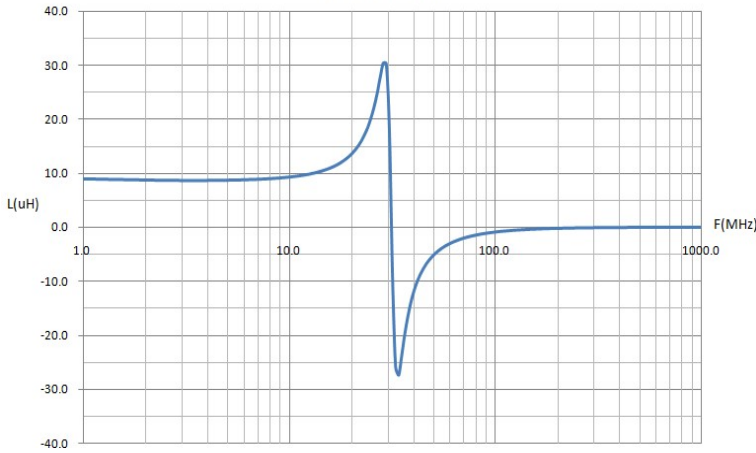




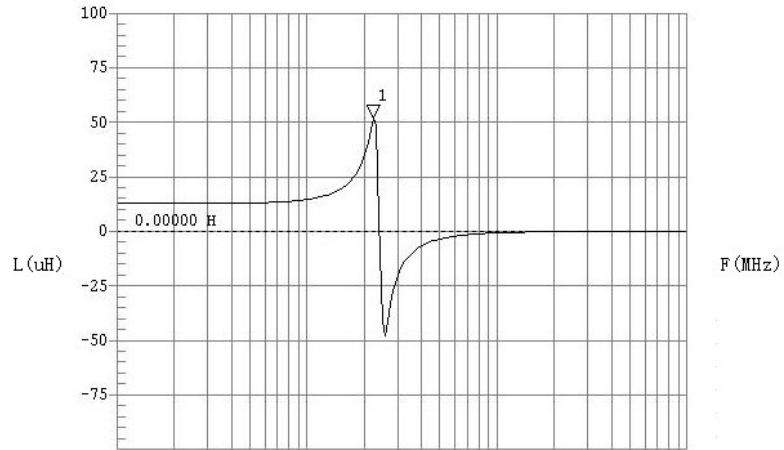
8. Inductance VS Self-resonant Frequency Curve :



CSME0418D-100M

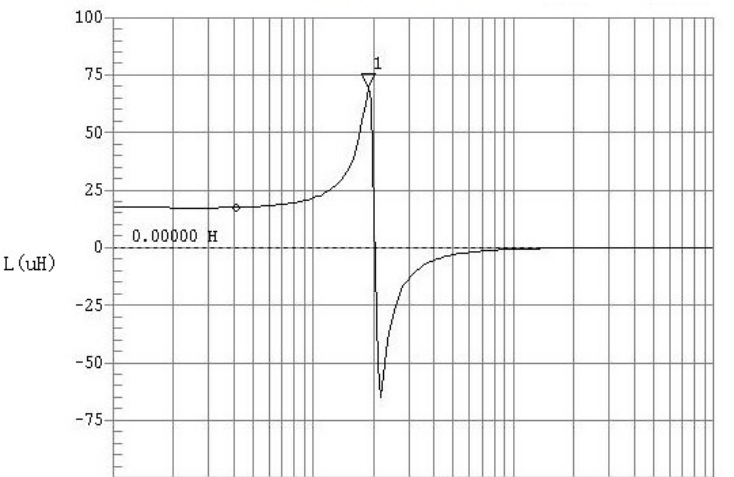


CSME0418D-150M



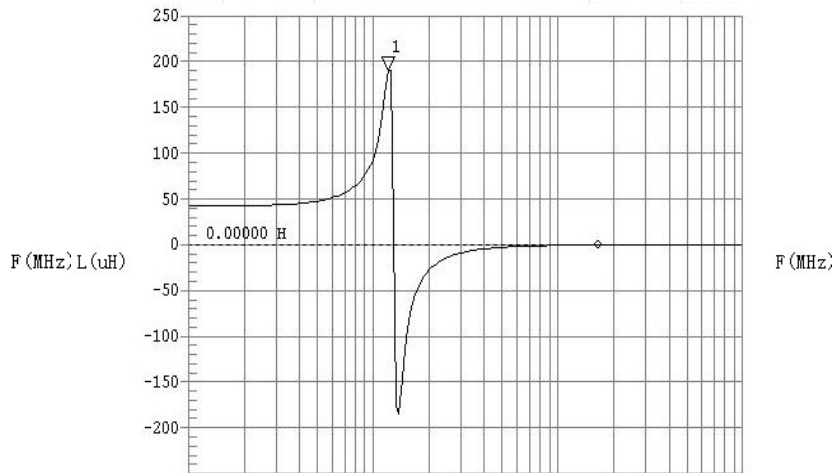
OSC 100.00 mV
START 1 MHz
SAvg OFF
BIAS OFF
STOP 1 GHz

CSME0418D-220M



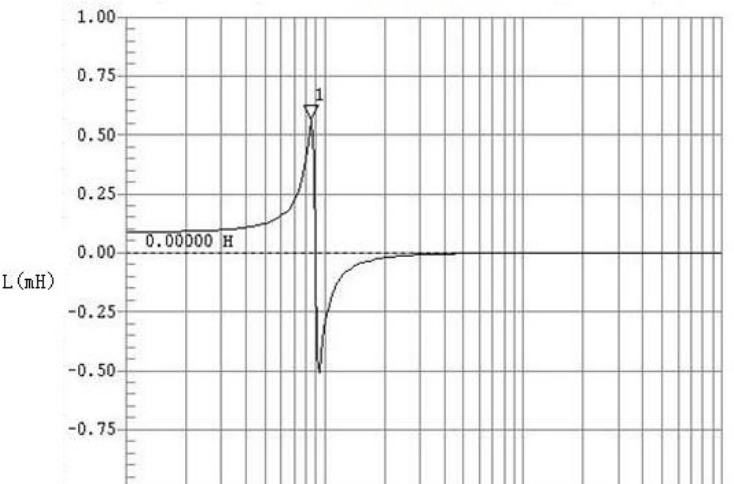
OSC 100.00 mV
START 1 MHz
SAvg OFF
BIAS OFF
STOP 1 GHz

CSME0418D-470M



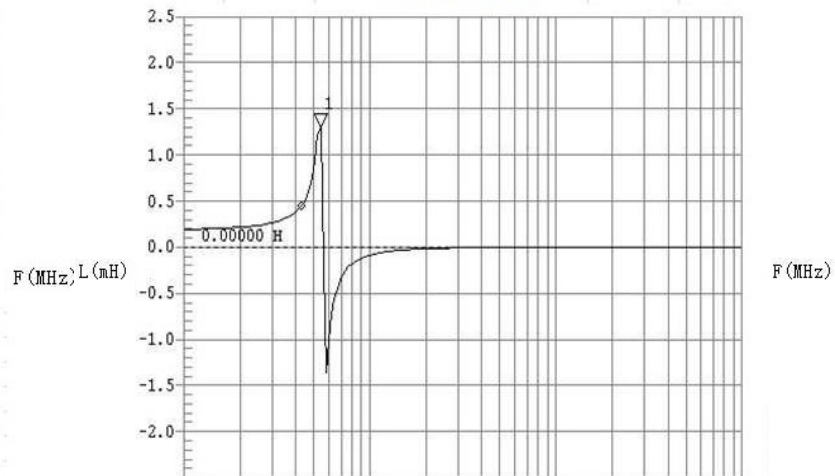
OSC 100.00 mV
START 1 MHz
SAvg OFF
BIAS OFF
STOP 1 GHz

CSME0418D-101M



OSC 100.00 mV
START 1 MHz
SAvg OFF
BIAS OFF
STOP 1 GHz

CSME0418D-221M



OSC 100.00 mV
START 1 MHz
SAvg OFF
BIAS OFF
STOP 1 GHz

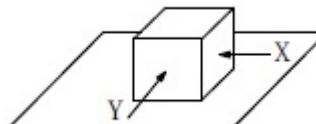
9. RELIABILITY PERFORMANCE

9-1.Storage Temperature range : $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$

9-2.Operating temperature range : $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (Including coil's self temperature rise)

9-3.External appearance : No external defects can be found in the visual inspection.

9-4.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 60 ± 2 seconds after soldering between copper plate and the electrodes. (Refer to figure at right)

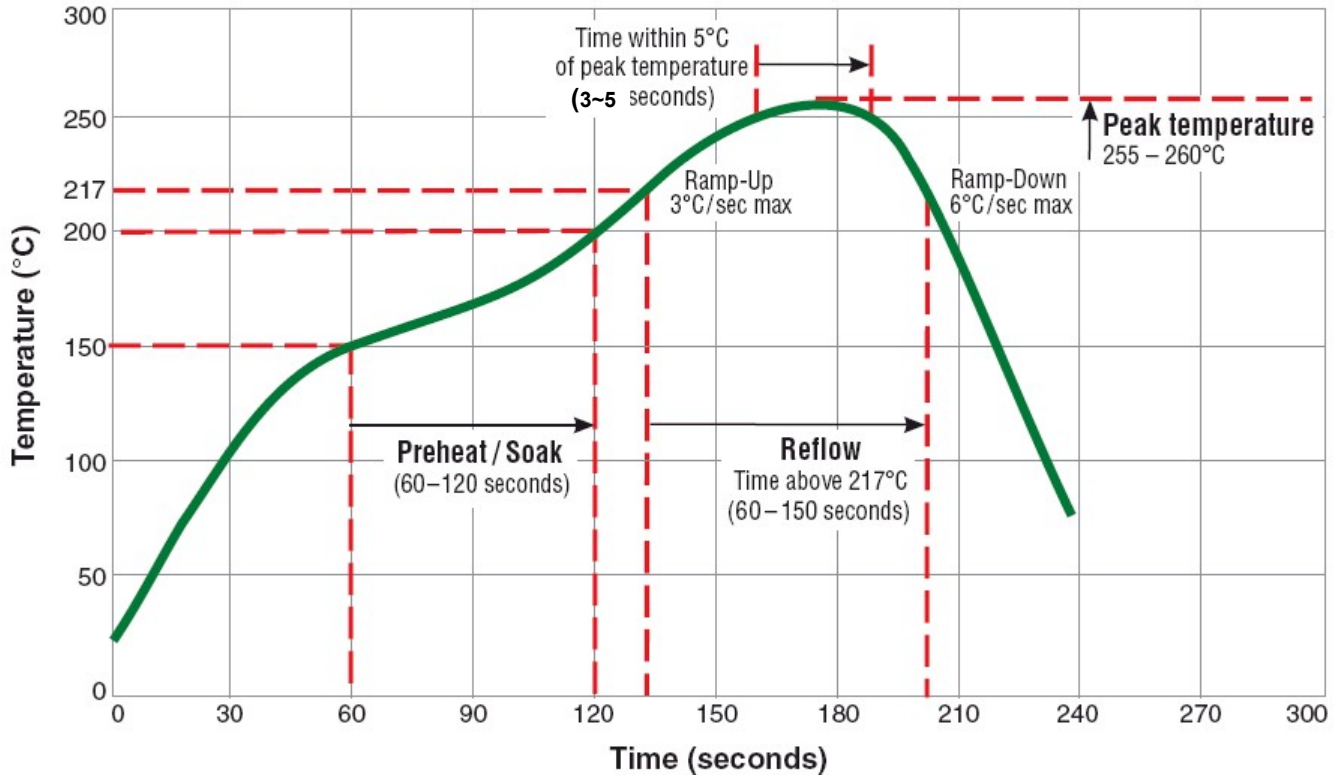


9-5.Vibration test : Inductance deviation is within $\pm 10.0\%$ after 1 hour sweeping vibration in each three directions, namely, forward and backward, up and down, right and left. The frequency is $10 \sim 55 \sim 10\text{Hz}$ and the amplitude of 1 minute cycle is 1.5mm PP.

9-6.Humidity test : Inductance deviation is within $\pm 5.0\%$ after 96 ± 4 hours test under the condition of relative humidity of $90 \sim 95\%$ 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.

10. REFLOW CHART

Typical RoHS Reflow Profile

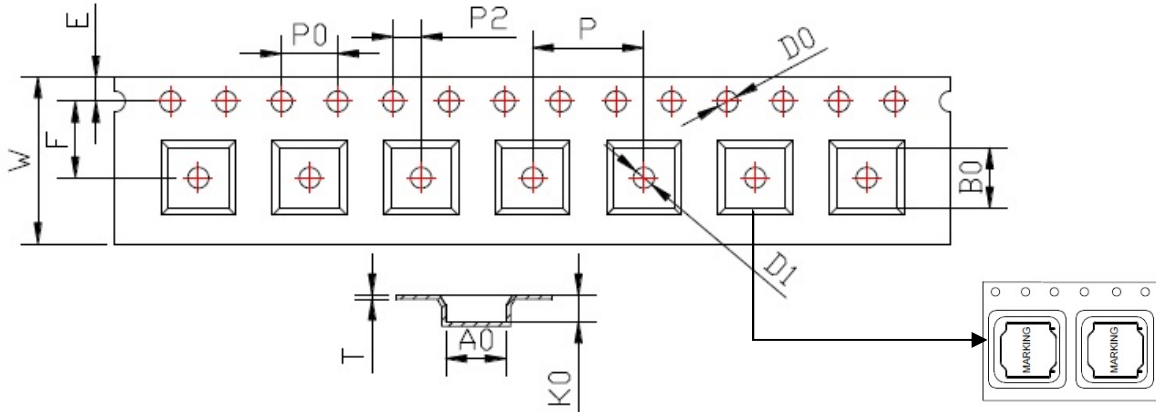


11. PACKING

11-1 OUTER PACKING

3 KPCS/REEL;9 KPCS/INNER BOX;27 KPCS/OUTER BOX

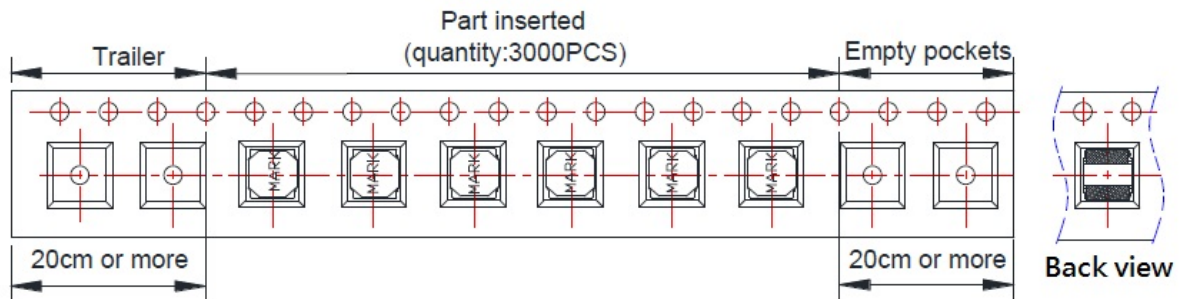
11-2 CARRIER TAPE DIMENSIONS



UNIT : mm

ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.0	4.35	4.35	1.95	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

11-3 TAPING DIMENSIONS



11-4 Reel Dimensions

