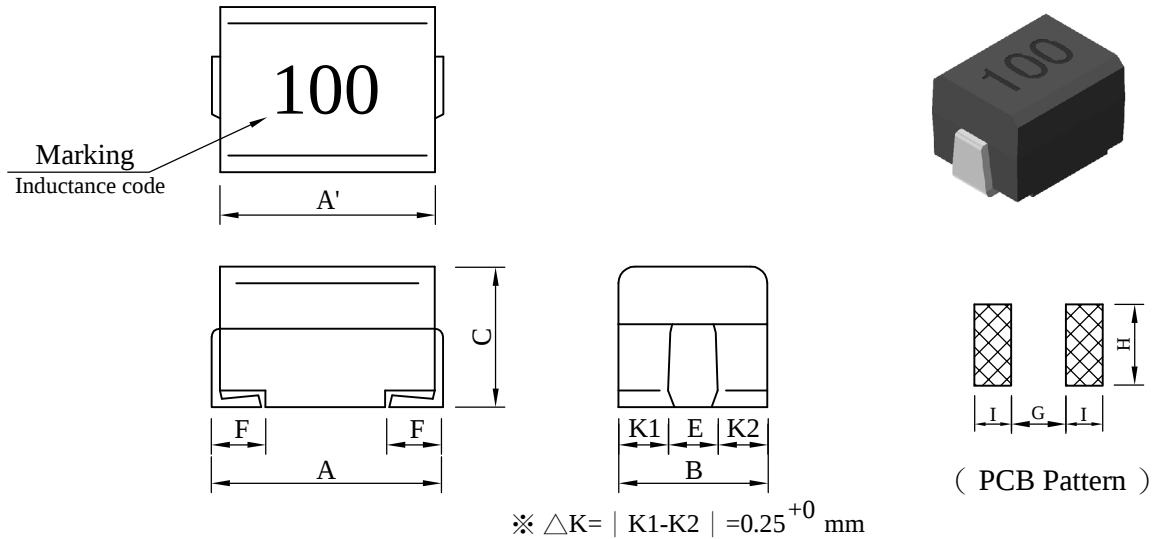


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Wound Chip Inductor	ABC'S DWG NO.		CM3225□□□□S□-□□□		
		REV.	20191106-B	PAGE	1	

I . Configuration and dimensions :



Unit : mm

A	A'	B	C	E	F	G	H	I
3.20 ±0.4	2.90 ±0.2	2.50 ±0.2	2.20 ±0.2	1.00 ±0.2	0.60 $\begin{smallmatrix} +0.3 \\ -0.0 \end{smallmatrix}$	1.80	1.40	1.00

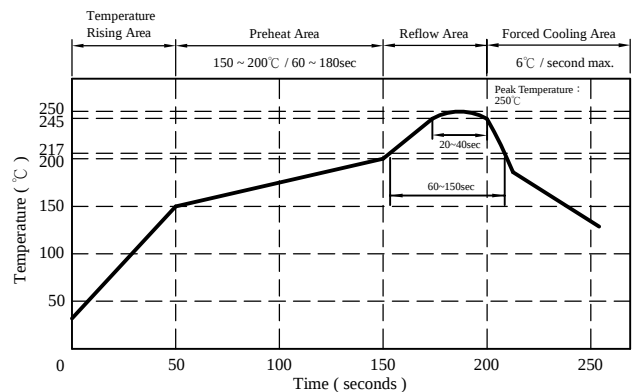
II . Description :

- a . Ferrite drum core construction.
- b . Enamelled copper wire : H class
- c . Product weight : 0.05 g (ref.)
- d . Moisture sensitivity Level 1
- e . Products comply with RoHS' requirements

III . General Specification :

- a . Temp. rise : 20°C max.
- b . Ambient temp. : 100°C max.
- c . Storage temp. : -40°C ----+125°C
- d . Operating temp. : -40°C ----+125°C
(Temp. rise included)
- e . Terminal pull strength : 1.5 kg min.
- f . Rated current : Current cause
inductance drop within 10%
- g . Resistance to solder heat : 260°C .10 secs.
- h . Resistance to solvent : Per MIL-STD-202F

Reflow profile
 Peak Temp : 250°C max.
 Max time above 245°C : 20~40sec max.
 Max time above 217°C : 60~150sec max.
 200°C~250°C Average Ramp-up Rate : 3°C/second max.



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SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Wound Chip Inductor	ABC'S DWG NO.		CM3225□□□□S□-□□□		
		REV.	20191106-B	PAGE	2	

IV . Electrical characteristics :

DWG. No.	Inductance (μ H)	Tolerance	Q min.	Test Freq (MHz)	SRF (MHz) typ.	RDC (Ω) max.	IDC (mA) max.
CM3225R12□S□ -□□□	0.12	K , M	30	25.200	875	0.22	450
CM3225R15□S□ -□□□	0.15	K , M	30	25.200	860	0.25	450
CM3225R18□S□ -□□□	0.18	K , M	30	25.200	685	0.28	450
CM3225R22□S□ -□□□	0.22	K , M	30	25.200	560	0.32	450
CM3225R27□S□ -□□□	0.27	K , M	30	25.200	525	0.36	450
CM3225R33□S□ -□□□	0.33	K , M	30	25.200	520	0.40	450
CM3225R39□S□ -□□□	0.39	K , M	30	25.200	470	0.45	450
CM3225R47□S□ -□□□	0.47	K , M	30	25.200	430	0.50	450
CM3225R56□S□ -□□□	0.56	K , M	30	25.200	395	0.55	450
CM3225R68□S□ -□□□	0.68	K , M	30	25.200	370	0.60	450
CM3225R82□S□ -□□□	0.82	K , M	30	25.200	310	0.65	450
CM32251R0□S□ -□□□	1.00	J , K , M	30	7.960	295	0.70	400
CM32251R2□S□ -□□□	1.20	J , K , M	30	7.960	255	0.75	390
CM32251R5□S□ -□□□	1.50	J , K , M	30	7.960	160	0.85	370
CM32251R8□S□ -□□□	1.80	J , K , M	30	7.960	125	0.90	350
CM32252R2□S□ -□□□	2.20	J , K , M	30	7.960	100	1.00	320
CM32252R7□S□ -□□□	2.70	J , K , M	30	7.960	65	1.10	290
CM32253R3□S□ -□□□	3.30	J , K , M	30	7.960	55	1.20	260
CM32253R9□S□ -□□□	3.90	J , K , M	30	7.960	50	1.30	250
CM32254R7□S□ -□□□	4.70	J , K , M	30	7.960	45	1.50	220
CM32255R6□S□ -□□□	5.60	J , K , M	30	7.960	40	1.60	200
CM32256R8□S□ -□□□	6.80	J , K , M	30	7.960	35	1.80	180
CM32258R2□S□ -□□□	8.20	J , K , M	30	7.960	30	2.00	170
CM3225100□S□ -□□□	10.00	J , K , M	30	2.520	30	2.10	150
CM3225120□S□ -□□□	12.00	J , K , M	30	2.520	28	2.50	140
CM3225150□S□ -□□□	15.00	J , K , M	30	2.520	25	2.80	130
CM3225180□S□ -□□□	18.00	J , K , M	30	2.520	22	3.30	120
CM3225220□S□ -□□□	22.00	J , K , M	30	2.520	19	3.70	110
CM3225270□S□ -□□□	27.00	J , K , M	30	2.520	18	5.00	80
CM3225330□S□ -□□□	33.00	J , K , M	30	2.520	17	5.60	70
CM3225390□S□ -□□□	39.00	J , K , M	30	2.520	15	6.40	65
CM3225470□S□ -□□□	47.00	J , K , M	30	2.520	14	7.00	60
CM3225560□S□ -□□□	56.00	J , K , M	30	2.520	13	8.00	55
CM3225680□S□ -□□□	68.00	J , K , M	30	2.520	11	9.00	50
CM3225820□S□ -□□□	82.00	J , K , M	30	2.520	10	10.00	45
CM3225101□S□ -□□□	100.00	J , K , M	20	0.796	9	11.00	40
CM3225121□S□ -□□□	120.00	J , K , M	20	0.796	8	11.00	70
CM3225151□S□ -□□□	150.00	J , K , M	20	0.796	7	15.00	65

- 1). Electrical specifications at 25℃
- 2). Tolerance : J = $\pm 5\%$, K = $\pm 10\%$, M = $\pm 20\%$

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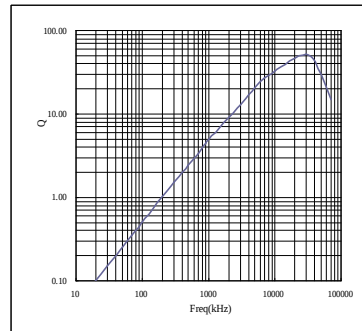
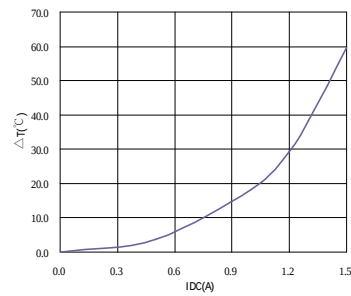
SPECIFICATION FOR APPROVAL

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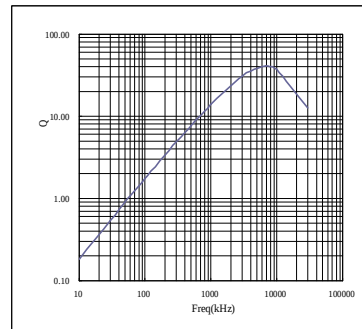
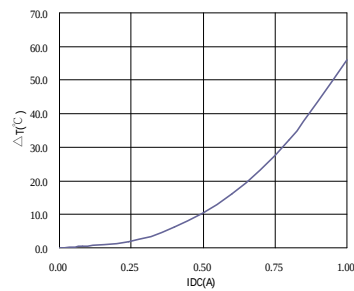
PROD. NAME	Wound Chip Inductor	ABC'S DWG NO.		CM3225□□□□S□-□□□		
		REV.	20191106-B	PAGE	3	

V . Curve :

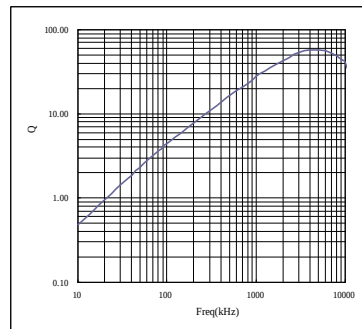
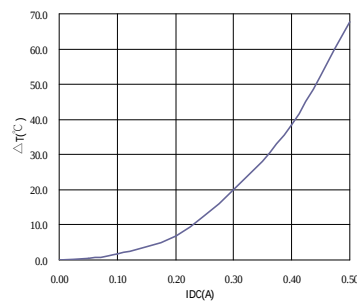
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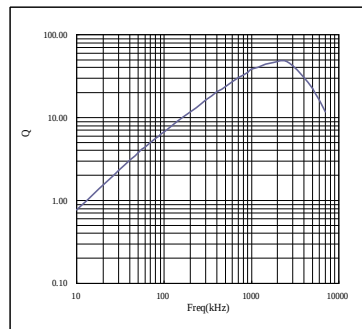
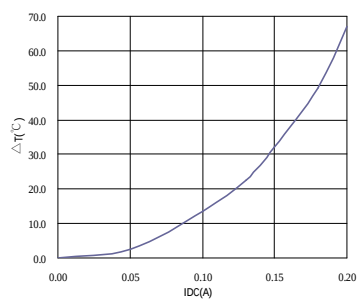
CM32251R0□S□



CM3225100□S□



CM3225121□S□



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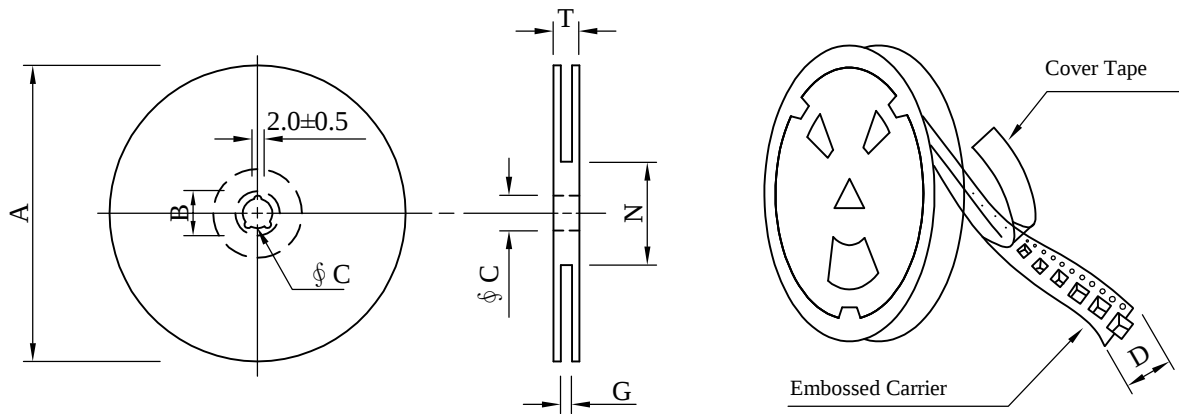
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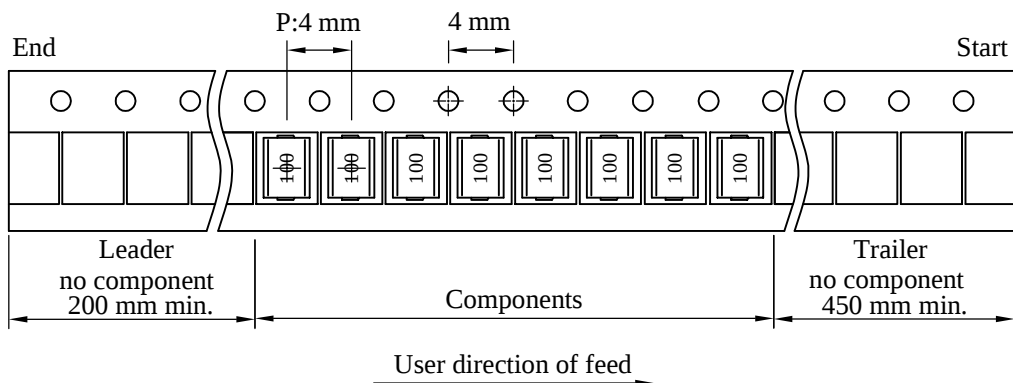
PROD. NAME	Wound Chip Inductor	ABC'S DWG NO.		CM3225□□□□S□-□□□	
		REV.	20191106-B	PAGE	4-1

VI-1 . Packaging information :

(1) Configuration



※Carrier Tape Width : D



(2) Dimensions

Unit:mm

Style	A	B	C	D	G	N	T
07 - 08	178	21±0.8	13	8	10 ⁺⁰	50 ⁻⁰	12.5
07(S) - 08	183	21±0.8	13	8	10 ⁺⁰	50 ⁻⁰	12.5

(3) Q'TY & G.W. Per package

Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (g)	Style	Q'TY (pcs)	G.W. (Kg)	Size (cm)
B	1,000	110	07 - 08	50,000	7.50	39.5 x 39.0 x 23.0
C	2,000	220	07(S) - 08	100,000	15.00	39.5 x 39.0 x 23.0
E	1,000	110	07 - 08	50,000	7.50	39.5 x 39.0 x 23.0

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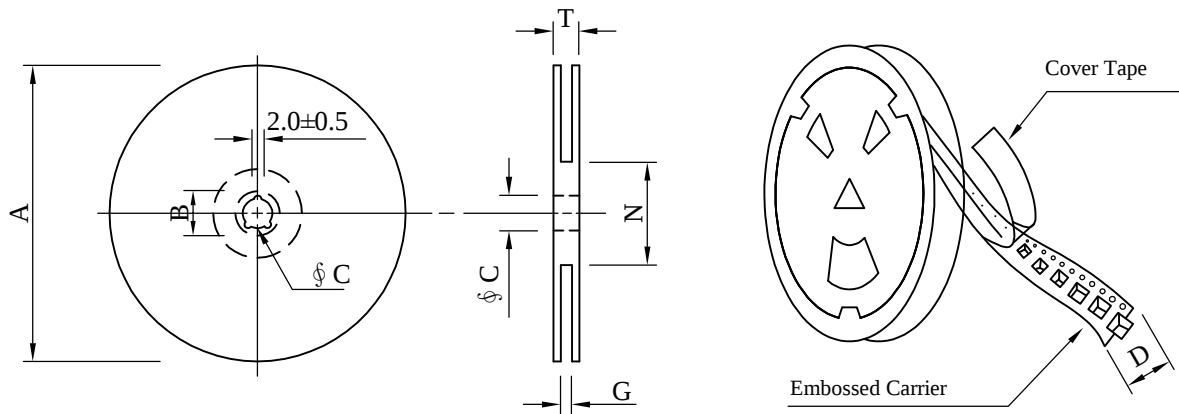
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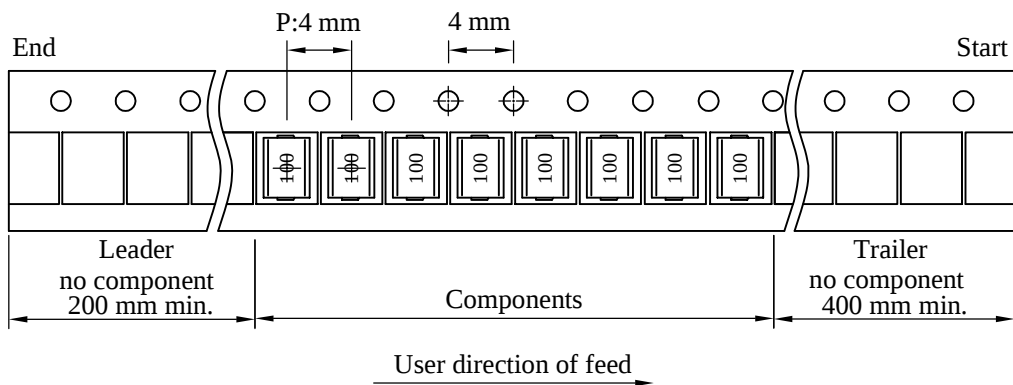
PROD. NAME	Wound Chip Inductor	ABC'S DWG NO.		CM3225□□□□S□-□□□	
		REV.	20191106-B	PAGE	4-2

VI-2 . Packaging information :

(1) Configuration



※Carrier Tape Width : D



(2) Dimensions

Unit:mm

Style	A	B	C	D	G	N	T
13 - 08	330	21±0.8	13±0.5	8	10 ⁺⁰	50 ⁻⁰	12.5

(3) Q'TY & G.W. Per package

Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (g)	Style	Q'TY (pcs)	G.W. (Kg)	Size (cm)
D	7,000	770	13 - 08	84,000	9.80	37.5 x 37.0 x 21.0

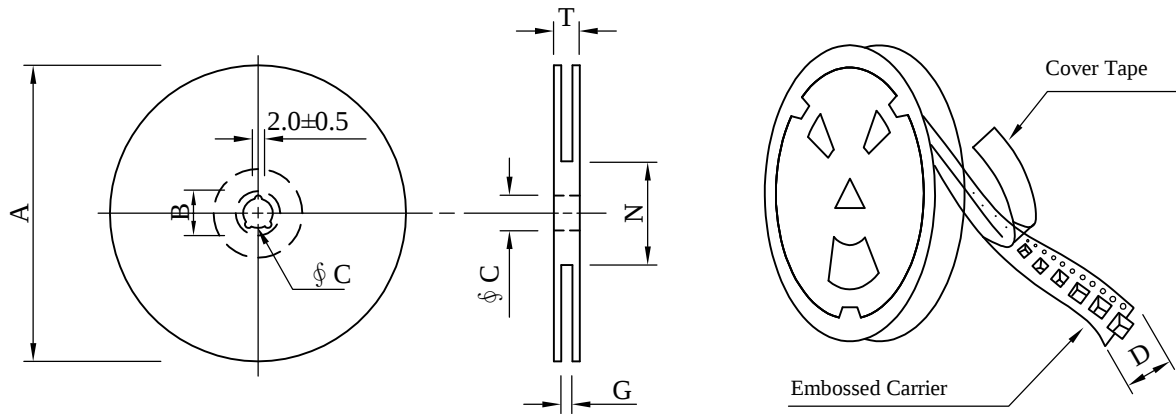
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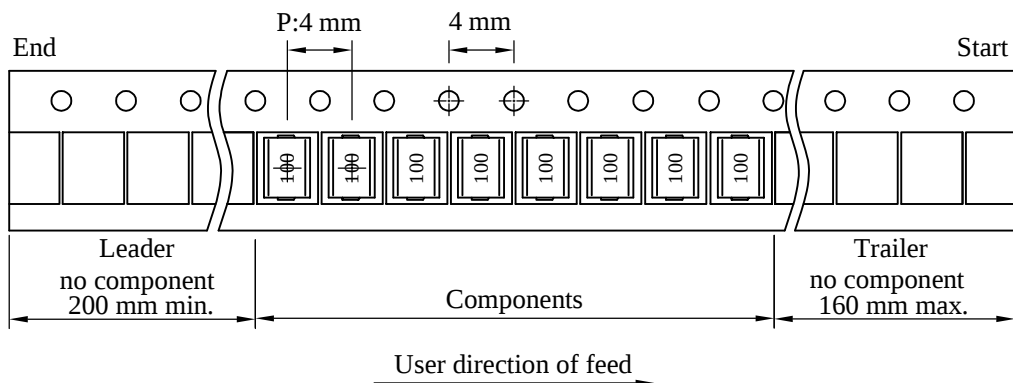
PROD. NAME	Wound Chip Inductor	ABC'S DWG NO.		CM3225□□□□S□-□□□	
		REV.	20191106-B	PAGE	4-3

VI-3 . Packaging information :

(1) Configuration



※Carrier Tape Width : D



(2) Dimensions

Unit:mm

Style	A	B	C	D	G	N	T
07 - 08	178	21±0.8	13	8	10 ⁺⁰	50 ⁻⁰	12.5

(3) Q'TY & G.W. Per package

Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (g)	Style	Q'TY (pcs)	G.W. (Kg)	Size (cm)
F	2,000	220	07 - 08	100,000	15.00	39.5 x 39.0 x 23.0

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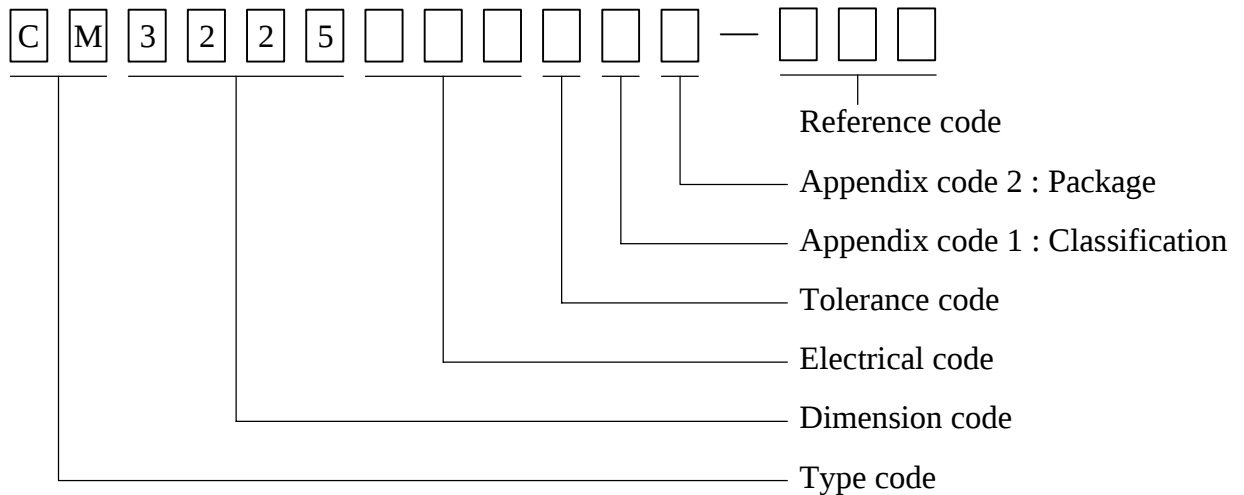
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PROD. NAME	Wound Chip Inductor	ABC'S DWG NO.		CM3225□□□□S□-□□□		
		REV.	20191106-B	PAGE	5	

VII . Drawing number expression :



Appendix code 1 : Product Classification

Appendix code 2 : Package Information

Code	Inner package	Cover tape	Carrier tape	Bag	Package Q'TY	Remark
B	T /R (Reel package)	Adhesive	Non-antistatic	Antistatic	1,000 pcs	
C	T /R (Reel package)	Adhesive	Non-antistatic	Antistatic	2,000 pcs	
D	T /R (Reel package)	Adhesive	Non-antistatic	Antistatic	7,000 pcs	
E	T /R (Reel package)	Adhesive	Antistatic	Antistatic	1,000 pcs	
F	T /R (Reel package)	Adhesive	Non-antistatic	Antistatic	2,000 pcs	

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SPECIFICATION FOR APPROVAL

REF. :

PROD.		ABC'S DWG NO.	CM3225□□□□S□-□□□		
NAME	Wound Chip Inductor	REV.	20191106-B	PAGE	6

VIII . Reliability test :

Item	Reference documents	Test Condition	Test Specification
1.High Temperature Exposure	MIL-STD-202 Method 108	1.Temperature: 125±2℃ 2.Time:96±2 hours.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
2.Temperature Cycling	JESD22-A 104	1.Temperature: -40℃ ~ +125℃ 2.Number of cycle:100 cycle 3.Dwell time:30 minutes	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature : 85±2 ℃ 2.Humidity: 85% RH. 3.Time:96±2 Hours	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
4.Operational Life	JESD22-A 108	1.Temperature: 125℃ (Temp. rise included) 2.Time:96±2 hours. 3.Rated current	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
5.External Visual	JESD22-B 101 & MIL-STD-883 Method 2009	Inspect product constructions, marking and workmanship.	1.No pollution on the surface of products. 2.Clear marking. 3.No crack.
6.Physical Dimensions	JESD22-B 100	Verify physical dimensions to the applicable product detail specification.	Per product specification standard
7.Resistance to solvents	MIL-STD-202 Method 215	Immerse into solvent for 3±0.5 minutes & brush 10 times for 3 cycles.	1.No body change in apperance. 2.No marking blurred. 3.Inductance shall not change more than ±10%.
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplitued : 10-2000-10 Hz, 1.5 mm. 2.Direction:X, Y, Z 3.Test duration:2 hours for each direction, 6 hours in total.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210 & J-STD020D.1	1.Highest temperature : 250±5℃. 2.Time (temp. ≥ 217℃) : 60~150 Second. 3.IR reflow times : 3 times.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
10.Saturation Current	JIS C 6436 & User SPEC.	1.Applied rated current for 5 second. 2.Rated current	Inductance shall not drop more than 10% max.
11.Over load	JIS C 6436 & User SPEC.	1.Applied one and half rated current for a period of 5 minutes. 2.Rated current	No electrical or mechanical damage
12.Temperature Rise Current	JIS C 6436 & User SPEC.	1.Applied rated current for 10 minutes. 2.Temperature measure by digital surface thermometer. 3.Irms current	Surface temperature rise is less than 20℃ max.
13.Solderability Test	J-STD-002 & JESD22-B 102	1.Baking in pre-testing : 150±5℃ / 16Hours±30 min. 2.Peak temperature : 240±5℃ 3.Time (temp. ≥ 217℃) : 60~150 second. 4.IR reflow times : 1 times.	More than 95% soldering coverage min on terminations.
14.Electrical Characteriazation	MIL-STD-202 Method 304 & User SPEC.	1.Operating temperature : -40℃~125℃ 2.Room temperature : 25℃.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
15.Withstanding Voltage Test	MIL-STD-202 Method 301 & User SPEC.	1.DC: 500 V (Terminal to Coating) 2.Time : 1minutes	1.During the test no breakdown. 2.No mechanical or electrical damage.
16.Insulation Resistance	MIL-STD-202 Method 302	DC voltage 100V applied between inductor terminal and coating for 1 minute.	1.IR = 1000MΩ Min. 2.No mechanical or electrical damage.
17.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. pcb and dropped down from a heigh of 1m 2.Drop total time : 6 time (Every side ofsample drop 2 time)	1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage.
18.Terminal Strength Test	IEC 60068-2-21	1.Apply push force to samples mounted on PCB. 2.Force of 1.8 kg for 60±1 seconds.	After test, inductors shall be no mechanical damage.

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SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Wound Chip Inductor	ABC'S DWG NO.		CM3225□□□□S□-□□□		
		REV.	20191106-B		PAGE	7

IX . Change history :

DATE/REV.	DISCRIPTION	DRAWN	CHECKED	APPROVED
20190920-A	New Release	TingTingL	Cyrus Zhang	Roger Fan
20191106-B	Modify the Unit : m/m → mm	Miz Hsieh	Nick Chen	Ken hsiao

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