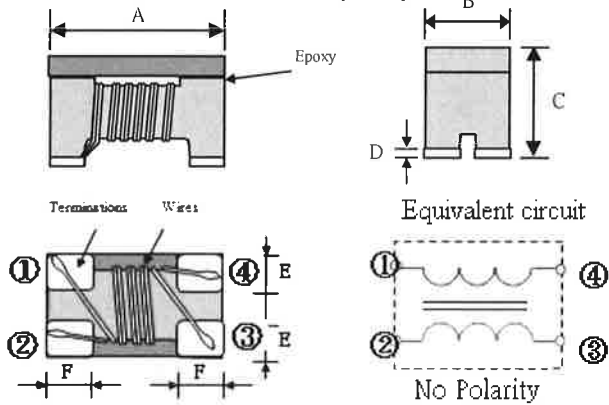


ITEM P/N	CF 3225CI-SERIES	TEST INSTRUMENT	4291A · 16502 · 6377
PRODUCT	COMMON MODE FILTERS	TEST FREQUENCY	100 KHz / 0.5V

## PACKING DIMENSIONS (mm)



CF3225	Dimensions
A	3.2 ± 0.2
B	2.5 ± 0.2
C	2.5 Max.
D	0.2 ± 0.1
E	0.75 ± 0.2
F	0.55 ± 0.15

## EXPLANATION OF PART NUMBERS

1	2	3	4	5	6	7	8	9	10	
C	F	3	2	2	5	CI	-	1	1	0
(1)			(2)			(3)		(4)		

- (1) Product name
- (2) Shapes and dimensions
- (3) Classification
- (4) Inductance Value(typ.)

## ELECTRICAL CHARACTERISTICS

P/N	Z(Ω)		L(μH)	DCR (Ω)	Idc(mA)	Rated Voltage	Insulation Resistance
	Common Mode	Common Mode	Common Mode				
	Impedance	Inductance	Inductance	[ Max ]	[ Max ]	Vdc	IR
	at 10MHz	at 100KHz				(V)Typical	(MΩ)Min.
CF 3225CI-110	min.	300	(+50%/-30%)	0.40	300	80	10
	typ.	500	11				
CF 3225CI-220	min.	500	(+50%/-30%)	0.50	250	80	10
	typ.	1000	22				
CF 3225CI-510	min.	1000	(+50%/-30%)	0.70	200	80	10
	typ.	2600	51				
CF 3225CI-101	min.	2200	(+50%/-30%)	1.50	150	80	10
	typ.	5100	100				
CF 3225CI-201	min.	10000	(+30%/-20%)	4.80	70	80	10
	typ.	15000	200				

Operating temperature : -40 to +125°C

Storage temp. and humidity : -25 to +85°C ,70%RH max

If Use Wave soldering is there will be some risk. Re-flow soldering temperatures below 240 degrees, there will be unwitting risk

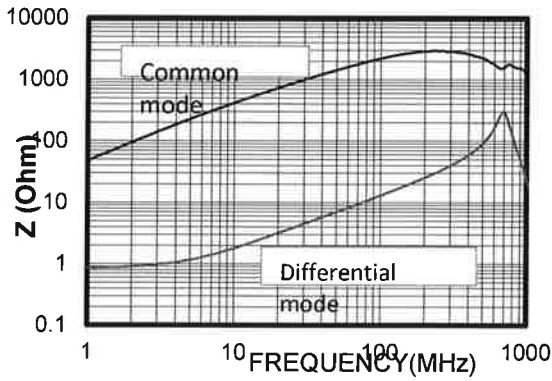
# CHARACTERISTICS

**RoHS  
COMPLIANT**

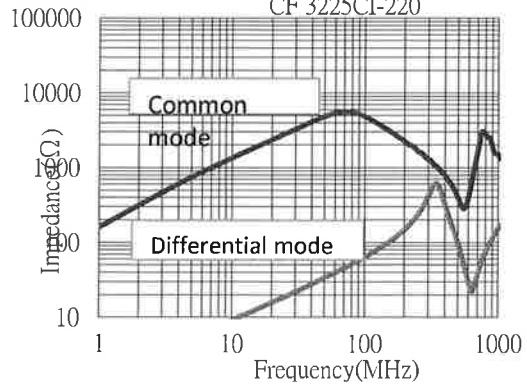
ITEM P/N	CF 3225CI-SERIES	TEST INSTRUMENT	4291A · 16502 · 6377
PRODUCT	COMMON MODE FILTERS	TEST FREQUENCY	100 KHz / 0.5V

## PERFORMANCE CURVES

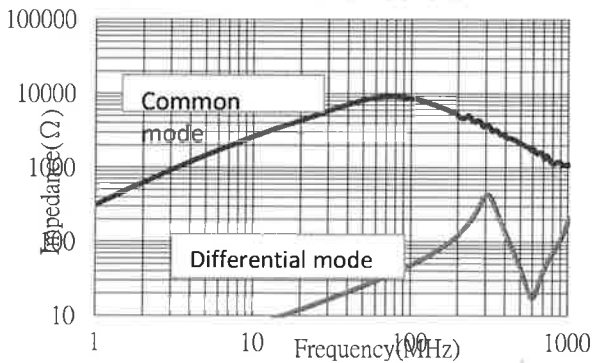
**CF3225CI-110**



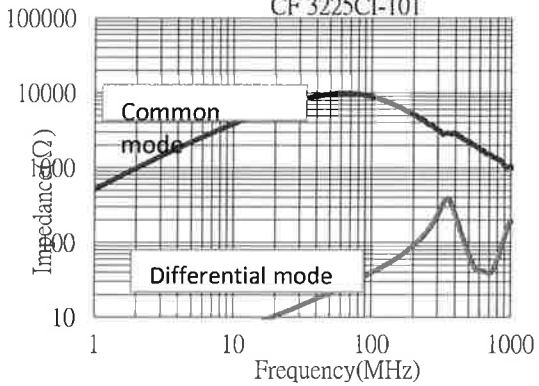
**CF 3225CI-220**



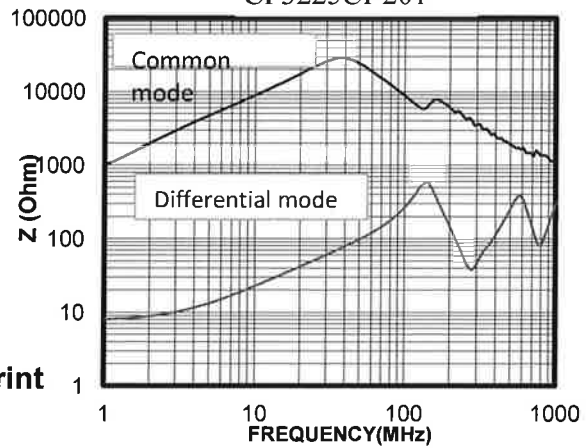
**CF 3225CI-510**



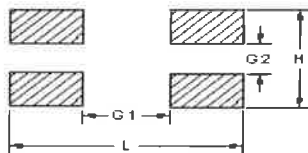
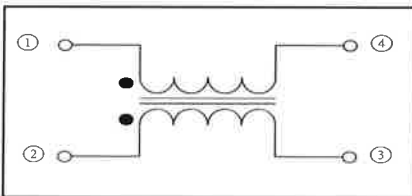
**CF 3225CI-101**



**CF3225CI-201**



## Equivalent Circuit & Recommended Footprint



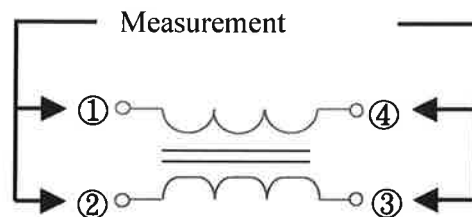
L(mm)	H(mm)	G1(mm)	G2(mm)
3.7	2.8	2.4	1.2

ITEM P/N	CF 3225CI-SERIES	TEST INSTRUMENT	4291A - 16502 - 6377
PRODUCT	COMMON MODE FILTERS	TEST FREQUENCY	100 KHz / 0.5V

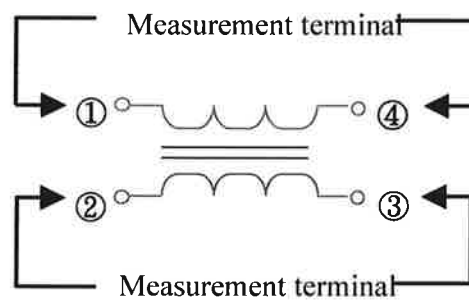
**Test Equipment****Impedance / Inductance**

Measured by using Agilent 4291A RF Impedance Analyzer.

Measured by using Microtest 6377 LCR METER.

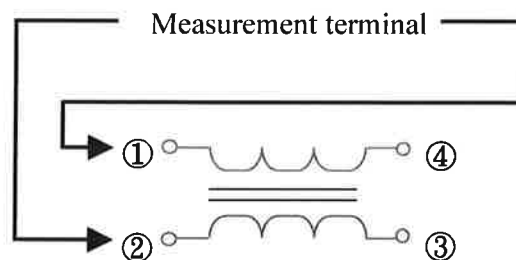
**DC Resistance**

Measured by using Chroma 16502 mill ohm meter.

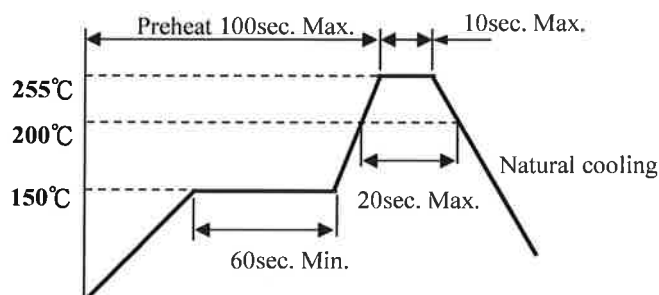
**Insulation Resistance**


Measured by using Chroma 19073

Measurement voltage : 50v , Measurement time : 60 sec.



ITEM P/N	CF 3225CI-SERIES	TEST INSTRUMENT	4291A、16502、6377
PRODUCT	COMMON MODE FILTERS	TEST FREQUENCY	100 KHz / 0.5V

**RECOMMENDED SOLDERING TEMP. GRAPH****Reliability and Test Condition**

Test item	Test condition / Test method	Specification														
Resistance to soldering heat	Solder: Sn99.5%-Cu0.5% Solder temperature: 260+5/-0°C Equipment : KUNG CHENG錫爐5" 400°C 、RF LCR METER。 Flux for lead free: Rosin. 9.5%。 Dip time: 10±0.5sec. Within : 1.5mm。 Magnification 10X。 Test the quantity : 30pcs。	Appearance : Cracking , chipping and any other defects harmful to the characteristics should not be allowed。 L: Within ±10% of initial value。														
Solder-ability Test	Preheat: 150°C,60sec.。 Solder: Sn99.5%-Cu0.5%。 Solder temperature: 245±5°C。 Equipment : KUNG CHENG錫爐5" 400°C。 Flux for lead free: Rosin. 9.5%。 Dip time: 4±1sec. Within : 19~31mm。 Magnification 50X。 Test the quantity : 50pcs。	Appearance : More than 95% of the terminal electrode should be covered with solder。														
Terminal strength	Solder a chip to test substrate and then laterally apply a force in the arrow direction.  Test Board φ1.0	<table border="1"> <thead> <tr> <th>Series No.</th> <th>F (Kg)</th> </tr> </thead> <tbody> <tr> <td>CM1210A/D</td> <td>0.2</td> </tr> <tr> <td>CM1608A/C</td> <td>0.5</td> </tr> <tr> <td>CM2012A/B/C</td> <td>0.5</td> </tr> <tr> <td>CM3216A</td> <td>1.0</td> </tr> <tr> <td>CF3225A/CI</td> <td>1.0</td> </tr> <tr> <td>CF4532A/CI</td> <td>1.0</td> </tr> </tbody> </table>	Series No.	F (Kg)	CM1210A/D	0.2	CM1608A/C	0.5	CM2012A/B/C	0.5	CM3216A	1.0	CF3225A/CI	1.0	CF4532A/CI	1.0
Series No.	F (Kg)															
CM1210A/D	0.2															
CM1608A/C	0.5															
CM2012A/B/C	0.5															
CM3216A	1.0															
CF3225A/CI	1.0															
CF4532A/CI	1.0															

ITEM P/N	CF 3225CI-SERIES	TEST INSTRUMENT	4291A、16502、6377
PRODUCT	COMMON MODE FILTERS	TEST FREQUENCY	100 KHz / 0.5V

**Reliability and Test Condition**

Test item	Test condition / Test method	Specification
Temperature Cycling Test	-40 +0/-2°C, + 125 +2/-0°C Kept for 30 minutes each, 1000 cycles, Transfer Time: 5 minutes Equipment : 高新 TH-1S-C、 RF LCR METER Test the quantity : 90pcs。	Appearance: Cracking, chipping any other defects harmful to the characteristics should not be allowed。  L: Within ±10% of initial value。
Humidity Resistance Test	85~90% R.H.*25~65 +2/-0°C *10 Cycles Equipment : 高新 TH-1S-C、 RF LCR METER Test the quantity : 90pcs。 Rated Current 100%	Appearance: Cracking, chipping and any other defects harmful to the characteristics should not be allowed。  L: Within ±10% of initial value。
Thermal Shock Test	CONDITION(Air-to-air) : -40 +0/-2°C, + 125 +2/-0°C Kept for 15 minutes each, 300 cycles, Transfer Time: 20 seconds Equipment : 高新 TH-1S-C、 RF LCR METER Test the quantity : 90pcs。	Appearance: Cracking, chipping and any other defects harmful to the characteristics should not be allowed。  L: Within ±10% of initial value。
High Temperature Exposure	125 +0/-2°C *1000±12HRs Equipment : 高新 TH-1S-C、 RF LCR METER Test the quantity : 90pcs。	Appearance: Cracking, chipping and any other defects harmful to the characteristics should not be allowed。  L: Within ±10% of initial value。

ITEM P/N	CF 3225CI-SERIES	TEST INSTRUMENT	4291A、16502、6377
PRODUCT	COMMON MODE FILTERS	TEST FREQUENCY	100 KHz / 0.5V

**Reliability and Test Condition**

Test item	Test condition / Test method	Specification
Biased Humidity Test	85% R.H.*85 +2/-0℃ *1000±12HRs Equipment : 高新 TH-1S-C、 RF LCR METER Test the quantity : 90pcs ◦	Appearance: Cracking, Chipping and any other defects harmful to the characteristics should not be allowed ◦  L: Within ±10% of initial value ◦
Vibration Test	It shall be soldered on substrate Oscillation Frequency: 10~2K ~10Hz for 20 minute ◦ Equipment : Vibration checker ◦ Total Amplitude: 1.52mm±10% ◦ Testing Time : 12 hours(20 minu , 12 cycles each of 3 orientations) Test the quantity : 30pcs ◦	Appearance: Cracking, Chipping and any other defects harmful to the characteristics should not be allowed ◦  L: Within ±10% of initial value ◦

**Application Notice**• **Storage Conditions**

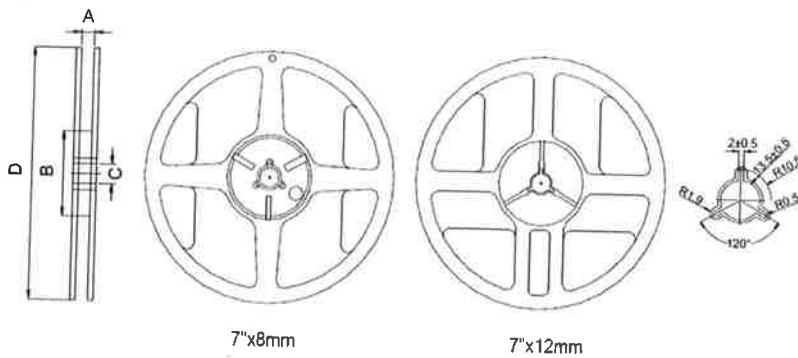
To maintain the solderability of terminal electrodes:

1. products meet IPC/JEDEC J-STD-020D standard-MSL, level 1.
2. Temperature and humidity conditions: Less than 40℃ and 60% RH.
3. Recommended products should be used within 6 months form the time of delivery.
4. The packaging material should be kept where no chlorine or sulfur exists in the air.

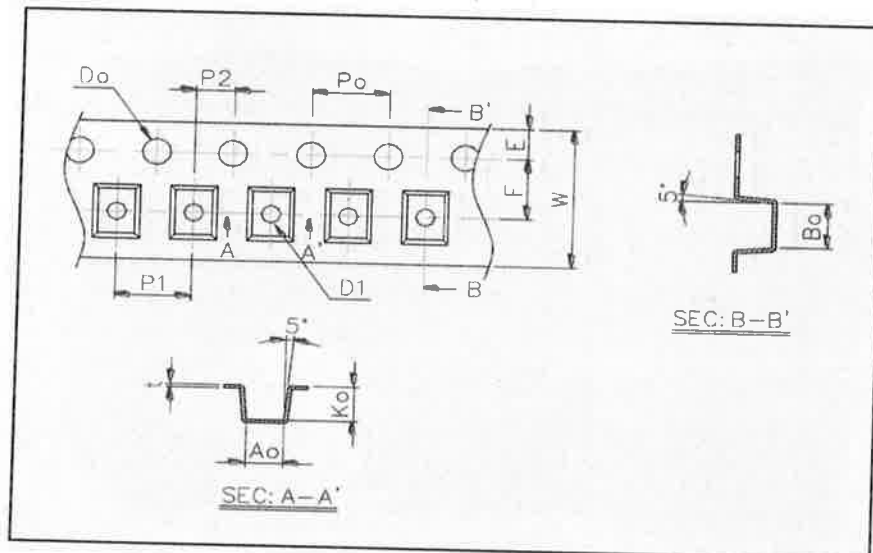
• **Transportation**

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.

ITEM P/N	CF 3225CI-SERIES	TEST INSTRUMENT	4291A、16502、6377
PRODUCT	COMMON MODE FILTERS	TEST FREQUENCY	100 KHz / 0.5V

**Reel Dimension & Tape Dimension**

Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	9.0±0.5	60±2	13.5±0.5	178±2
7"x12mm	13.5±0.5	60±2	13.5±0.5	178±2



Size	Ao(mm)	Bo(mm)	Ko(mm)	W(mm)	E(mm)	F(mm)	Po(mm)	P1(mm)	Do(mm)
1210	1.15±0.10	1.40±0.10	0.93±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.5+0.1,-0
1608	1.00±0.10	1.65±0.10	1.18±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.5+0.1,-0
2012	1.50±0.10	2.35±0.10	1.45±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.0±0.1
3216	1.88±0.10	3.50±0.10	2.10±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.0±0.1
3225	2.80±0.10	3.60±0.10	2.20±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.0±0.1
4532	3.45±0.10	4.90±0.10	3.05±0.10	12.00±0.20	1.75±0.10	5.50±0.05	4.0±0.05	8.0±0.10	1.5+0.1,-0

**Packaging Quantity(Unit : PCS)**

Chip Size	1210	1608	2012	3216	3225	4532
8mm/ Reel	3000	2000	2000	2000	1000	500