

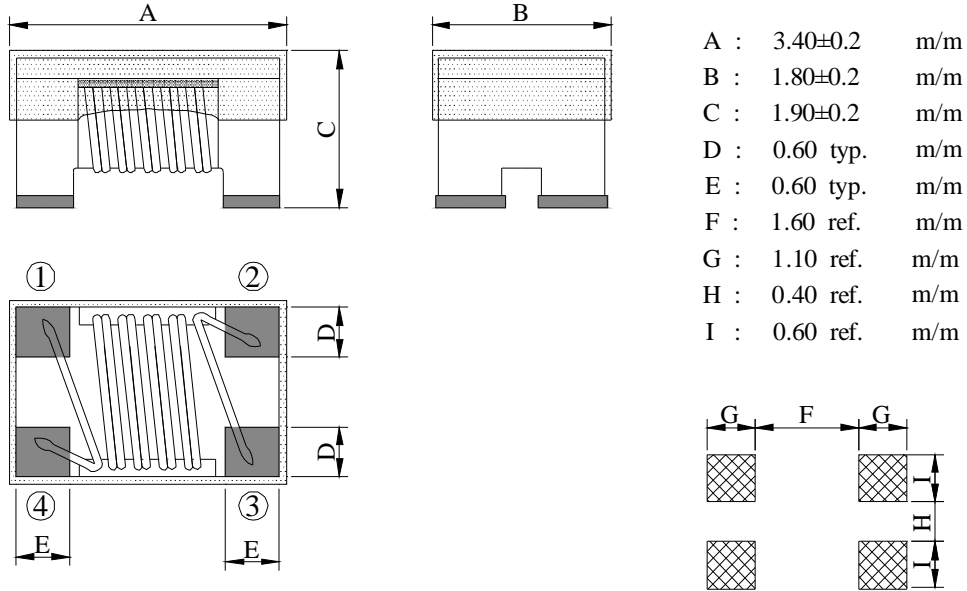
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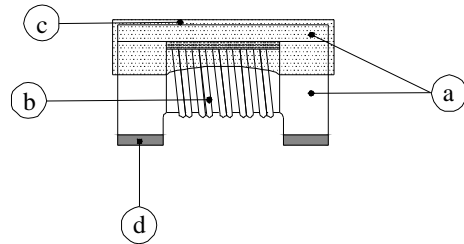
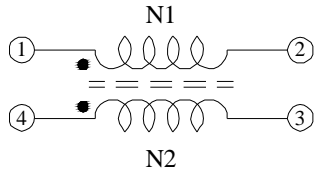
PROD. NAME	<b>SMD LINE FILTER</b>	ABC'S DWG NO. ABC'S ITEM NO.	SF3216□□□□F□-□□□
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### I . MECHANICAL DIMENSIONS :



( PCB Pattern )

### II . SCHEMATIC DIAGRAM :



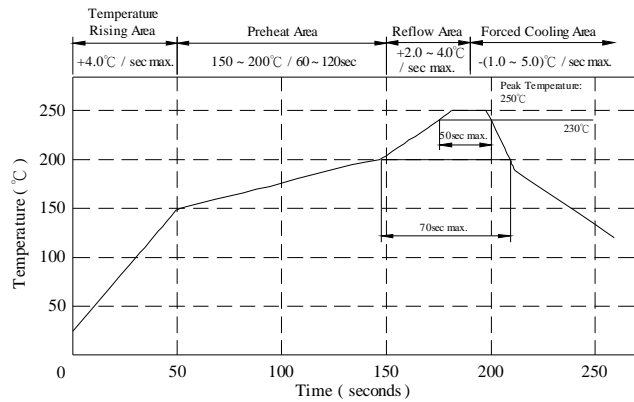
### III . MATERIALS LIST :

- a . Core : Ferrite
- b . Wire : Enamelled copper wire ( class H )
- c . Encapsulate : Epoxy
- d . Terminal : Ag / Ni / Sn
- e . Remark : Products comply with RoHS' requirements

Peak Temp : 250°C max.  
 Max time above 230°C : 50sec max.  
 Max time above 200°C : 70sec max.

### IV . GENERAL SPECIFICATION :

- a . Temp. rise : 15°C max.
- b . Storage temp. : -10°C ----+40°C
- c . Operating temp. : -55°C ----+125°C



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**V . ELECTRICAL CHARACTERISTICS :**

Dwg. No.	Impedance ( Ω ) @ 100 MHz	Rated ( DC ) V	Withstanding ( DC ) V	Insulation Resistance ( MΩ ) min.	RDC ( Ω ) max.	IDC ( mA ) max.
SF3216900YF□ -□□□	90±25%	50	125	10	0.300	370
SF3216161YF□ -□□□	160±25%	50	125	10	0.400	340
SF3216261YF□ -□□□	260±25%	50	125	10	0.500	310
SF3216601YF□ -□□□	600±25%	50	125	10	0.800	260
SF3216102YF□ -□□□	1000±25%	50	125	10	1.000	230
SF3216222YF□ -□□□	2200±25%	50	125	10	1.200	200

1). □ : Packaging information...  Bulk  Taping Reel

2). "-□□□":Reference code

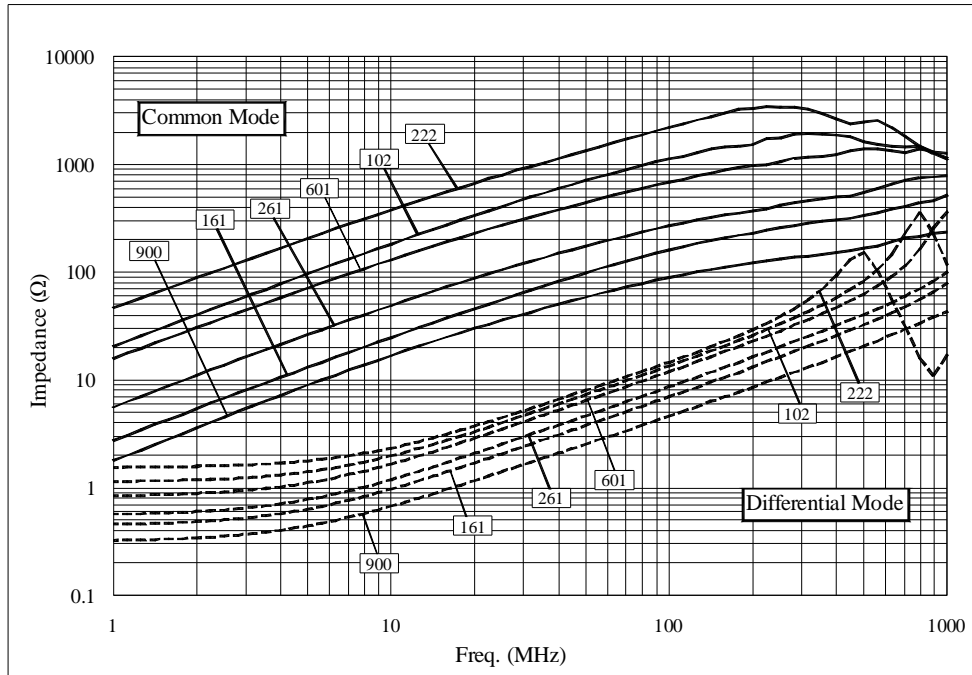
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## VI . IMPEDANCE VS. FREQUENCY CHARACTERISTICS :



Z (f)	Common Mode							Normal Mode						
	1 MHz	3 MHz	10 MHz	30 MHz	100 MHz	300 MHz	1 GHz	1 MHz	3 MHz	10 MHz	30 MHz	100 MHz	300 MHz	1 GHz
900	1.77	5.70	16.87	42.55	89.07	141.87	235.92	0.323	0.373	0.673	1.712	4.615	13.140	43.267
161	2.71	8.44	24.85	67.95	161.36	285.19	518.94	0.454	0.530	0.969	2.521	6.975	20.588	79.105
261	5.57	17.14	49.01	125.69	269.19	458.97	784.78	0.567	0.654	1.182	3.098	8.618	25.473	100.999
601	15.72	46.85	131.01	324.77	688.79	1173.27	1143.28	0.842	0.951	1.654	4.287	11.915	36.314	363.155
102	20.38	62.39	183.08	495.41	1130.31	1942.16	1256.75	1.141	1.245	1.971	4.892	13.506	43.048	116.782
222	46.68	134.94	379.06	956.34	2211.36	3253.78	1112.27	1.540	1.633	2.328	5.419	14.621	55.642	17.099

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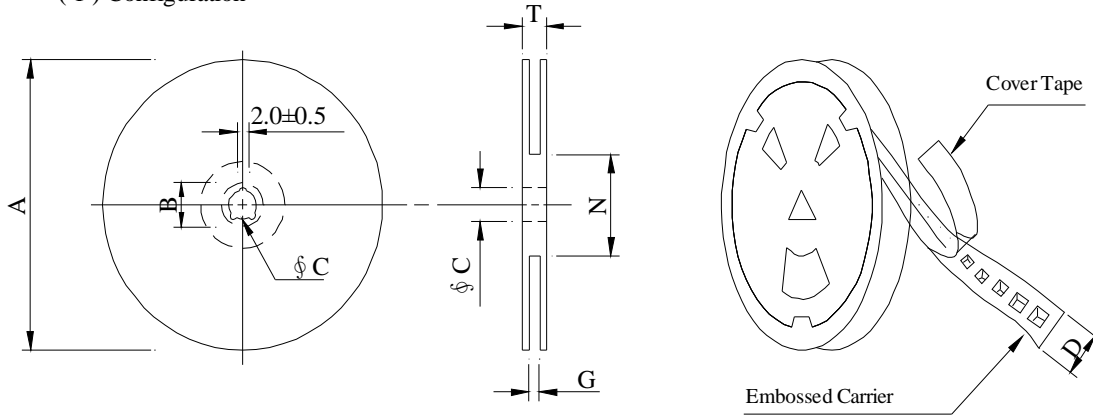
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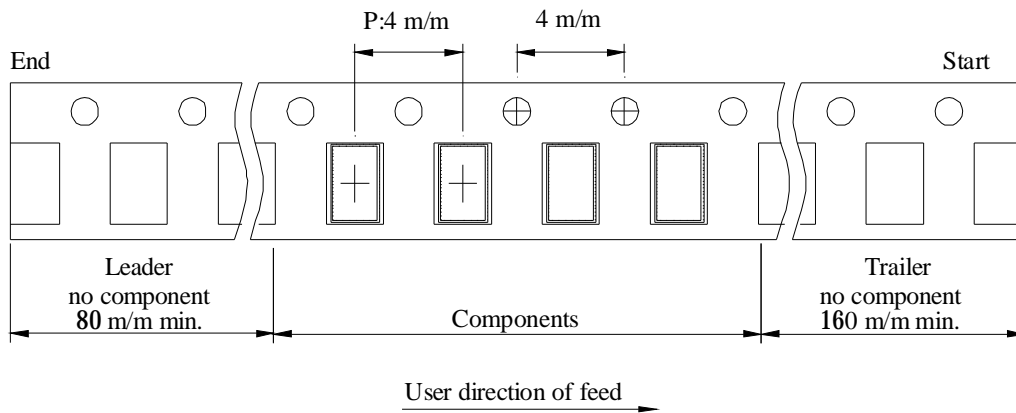
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## VII . PACKAGING INFORMATION :

### (1) Configuration



※Carrier Tape Width : D



### (2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 08	178	21±0.8	13	8	14 <sup>+0</sup>	50 <sup>-0</sup>	16.5

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

Series	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (gw)	Style	Q'TY (pcs)	G.W. (Kg)	SIZE (cm)
SF3216	2,000	95	07 - 08	100,000	6.50	41 x 39 x 22

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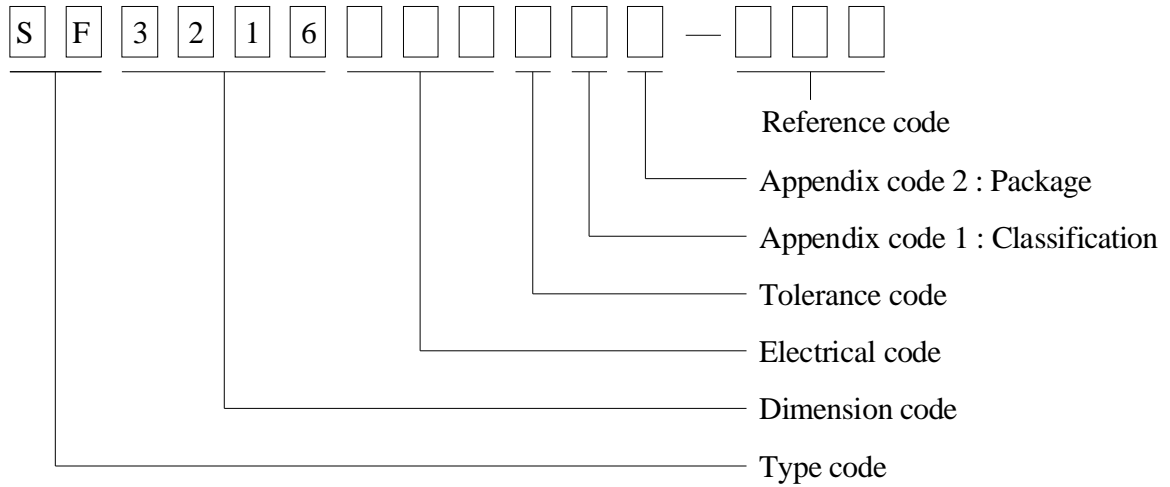
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### VIII . DWGING NUMBER EXPRESSION :



#### Appendix code 1 : Product Classification

F : Lead Free Standard products comply with RoHS' requirements

1 ~ 9 : Lead Free Special products comply with RoHS' requirements

#### Appendix code 2 : Package Information

Code	Inner package	Inner package Q'TY	Remark
A	T.B.D.	T.B.D.	
B	T / R ( Reel package )	2000 pcs	

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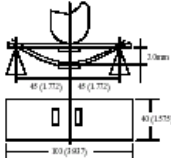
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## IX . RELIABILITY TEST :

**COMMON MODE CHOKE  
WIRE WOUND TYPE**

### RELIABILITY SPECIFICATION

	ITEM	CONDITION	SPECIFICATION
<b>Electrical Characteristics</b>	Common Mode Impedance (Zc) and Tolerance	Measuring Equipment : HP-4287A or equivalent. Measuring Frequency : 100 ± 1MHz Measuring Temperature : 25 ± 5°C (Refer to Measurement Diagram )	Within ± 25%
	Insulation Resistance	Measuring Voltage : Rated Voltage Measuring Time : 1 minute max. (Refer to Measurement Diagram )	10 mega ohms minimum
	Dielectric Withstanding Voltage	Test Voltage : 2.5 times for Rated Voltage Time : 1 to 5 seconds. Charge current : 1mA max. (Refer to Measurement Diagram )	No damage occurs when the test voltage is applied.
	Rated Current	Test Current : Rated Current (Refer to Measurement Diagram )	Temperature Rise : ≤ 15°C
	DC Resistance (RDC)	Measured with current of 100mA max. In case of doubt, measured by four terminal method. (Refer to Measurement Diagram )	Within Specified Tolerance.
<b>Mechanical Characteristics</b>	Flexure Strength		<b>Table 1.</b>  Change In Appearance Without distinct damage  Change In Common Mode Impedance: Within ± 20%  Insulation Resistance: 10MΩ min  Withstanding Voltage: No damaged
	Drop Test	Components shall be dropped three times on a concrete or steel board at height of 1 m naturally at any directions.	
	Vibration (Random)	Components shall be randomly vibrated at amplitude of 1.5mm and frequency of 10 - 55 Hz: 0.04 G / Hz, 1 minute at a period of 2 hours in each of the three mutually perpendicular directions.	
	Solderability	Dip pads in flux and then in a solder pot containing lead free solder at 240 °C ± 5°C for 5 seconds.	A minimum of 80% of the metalized area must be covered with new solder.
	Resistance to Soldering Heat	Preheat components at 80 to 120 °C for 1 minute. Dip components into flux and then into a solder pot containing lead free solder at 260 °C ± 5 °C for 5 ± 1 seconds. Then components are to be tested after 4-48 hours at room temperature.	Meet Table 1.
Component Adhesion (Push Test)	Components shall be reflow soldered onto a P. C. Board ( 240 °C ± 5°C for 20 seconds ). Then a dynameter force gauge shall be applied to any side of the component.	Components must withstand a minimum force of 1 Kg without any failure of the termination to component attachment.	

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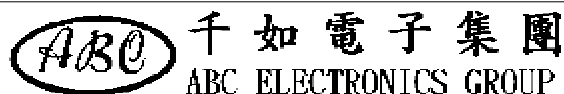
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		ABC'S ITEM NO.	

**COMMON MODE CHOKE  
WIRE WOUND TYPE**

## RELIABILITY SPECIFICATION

	ITEM	CONDITION	SPECIFICATION
<b>Endurance Characteristics</b>	Cold Temperature Storage	Components shall be stored at temperature of $-40\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ for 1000 (+48 hours -0 hour). Then components shall be subjected to standard atmospheric conditions for 4-48 hours. After that, measurement shall be made.	Table 1. Change In Appearance Without distinct damage
	High Temperature Storage	Components shall be stored at temperature of $+85\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ for 1000 (+48 hours -0 hour). Then components shall be subjected to standard atmospheric conditions for 4-48 hour. After that, measurement shall be made.	Change In Common Mode Impedance: Within $\pm 20\%$
	Moisture Resistance	Components shall be stored in the chamber at $40\text{ }^{\circ}\text{C}$ at 90 - 95% R. H. for 1000 (+48 hours -0 hour). Then components are to be tested after 4-48 hours at room temperature.	Insulation Resistance: 10M $\Omega$ min
	Temperature Cycle	Each cycle shall consist of 30 minutes at $-40\text{ }^{\circ}\text{C}$ followed by 30 minutes at $85\text{ }^{\circ}\text{C}$ with a 10-15 minutes maximum transition time between temperature extremes. Test duration is 100 cycles, then components are to be tested after 4-48 hours at room temperature.	Withstanding Voltage: No damaged
	High Temperature With Loaded	Components shall be stored at temperature of $+85\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ for 1000 (+48 hours -0 hour) with rated current applied. Then components shall be subjected to standard atmospheric conditions for 4-48 hour. After that, measurement shall be made.	

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**X . UL CARD :**

OBMW2 August 27, 1999  
 Magnet Wire-Component

ELEKTRISOLA (MALAYSLA) SDN BHD E143312  
 IALAN DAMN SATU IANDA BAIK 28750 BENTONG, PAHANG  
 DARUL MAKMUR MALAYSIA

Mtl Dsg	Mark Dsg	Coating Type		ANSI Typ	Temp Class
		BC	OC		
Estersol 160	E180	Polyesterimide (solderable)	—	MW-77	180
Amldester 200	A200	Polyesterimide	—	MW-74	200
Polysol-N 155	PN155	Polyurechane	Nylon	MW-80, MW-28	155, 100
Polysol 155	P155	Polyurechane	—	MW-79, MW-79	155, 130
Polysol 155g	Pg155	Polyurechane	—	MW-79	130
Polysol 155p	Pp155,Gp155	Polyurechane	—	MW-79	155
Polysol 160	P160	Polyurechane	—	MW-79	155
Polysol 180	P180	Polyurechane	—	MW-79	155
Polysol 170	P170 or G170	Polyurechane	—	MW-79	156
Polysol-N 180	PN180	Polyurechane	Nylon	—	180

Marking : Company name/material designation or marked designation and factory identification on package ok reel

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See General Information preceding These Recognitions  
 For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

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