High Frequency Wire Wound Chip Inductors

AHW-C Series

FEATURES

- High Q value and high self-resonant frequency with ceramic material.
- Small chip suitable for surface mounting.
- Single-sided package.
- Tight inductance tolerance and high reliability.
- Operating Temp：-40℃~+125℃(Including self heating).



APPLICATIONS

- High frequency line of communication equipment and wireless module.
- Mobile phones，smart watches and other portable electronic devices.
- Bluetooth，W-LAN，Broadband network.

PART NUMBERING

AHW	1608	C	-	10N	□	T	F
①	②	③		④	⑤	⑥	⑦

① Series Name	
AHW	High Frequency Wire Wound Chip Inductor

③ Feature Type	
C	Ceramic Core

② External Dimensions[inch]
1005[0402]
1608[0603]
2012[0805]
2520[1008]
3216[1206]
3225[1210]

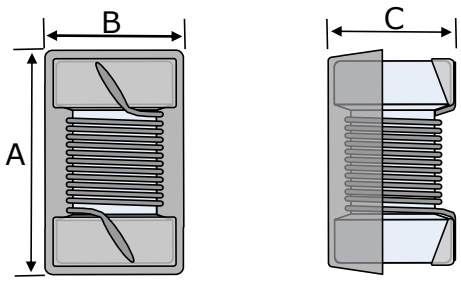
④ Nominal Inductance	
Code (example)	Nominal Value［nH］
1N0	1.0
R10	100
1R0	1000

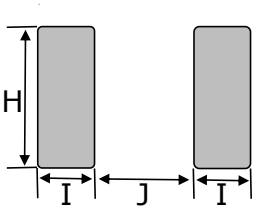
⑤ Inductance Tolerance	
S	±0.3nH
D	±0.5nH
G	±2%
J	±5%
K	±10%
M	±20%

⑥ Packaging	
T	Tape & Reel

⑦ HSF Products	
F	Hazardous Substance Free Products

DIMENSIONS & RECOMMENDED LAND PATTERN





Recommended Land Pattern

Unit: mm

Series	Dimensions			Recommended Land Pattern		
	A	B	C	I	H	J
	Max.			Typ.		
AHW1005C	1.19	0.70	0.64	0.36	0.66	0.46
AHW1608C	1.80	1.12	0.95	0.64	1.02	0.64
AHW2012C	2.29	1.73	1.52	1.02	1.78	0.76
AHW2520C	2.92	2.70	2.23	1.02	2.54	1.27
AHW3216C	3.56	2.16	1.52	1.02	1.93	1.78
AHW3225C	3.50	2.90	2.25	1.02	2.54	1.78

ELECTRICAL CHARACTERISTICS

- AHW1005C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	GHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW1005C-1N0□TF	1	S,D,J,K,M	250	10	12.9	0.045	1360
AHW1005C-1N3□TF	1.3	S,D,K,M	250	8	12.9	0.15	900
AHW1005C-1N5□TF	1.5	S,D,K,M	250	8	12.9	0.15	800
AHW1005C-1N8□TF	1.8	S,D,K,M	250	20	12	0.07	1040
AHW1005C-1N9□TF	1.9	S,D,K,M	250	20	11.3	0.07	1040
AHW1005C-2N0□TF	2	J,K,M	250	23	11.1	0.09	1040
AHW1005C-2N2□TF	2.2	J,K,M	250	22	10.8	0.09	960
AHW1005C-2N4□TF	2.4	J,K,M	250	22	10.5	0.09	790
AHW1005C-2N5□TF	2.5	J,K,M	250	22	10.5	0.09	790
AHW1005C-2N6□TF	2.6	J,K,M	250	12	10.4	0.17	400
AHW1005C-2N7□TF	2.7	J,K,M	250	12	10.4	0.17	860
AHW1005C-2N9□TF	2.9	J,K,M	250	8	8	0.25	400
AHW1005C-3N0□TF	3	J,K,M	250	24	7	0.076	840
AHW1005C-3N3□TF	3.3	J,K,M	250	24	7	0.076	840
AHW1005C-3N6□TF	3.6	J,K,M	250	24	6.8	0.076	840
AHW1005C-3N9□TF	3.9	J,K,M	250	24	6	0.076	840
AHW1005C-4N1□TF	4.1	J,K,M	250	22	6	0.091	700

ELECTRICAL CHARACTERISTICS

● AHW1005C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	GHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW1005C-4N3□TF	4.3	J,K,M	250	22	6	0.091	700
AHW1005C-4N7□TF	4.7	J,K,M	250	20	4.77	0.13	640
AHW1005C-5N1□TF	5.1	J,K,M	250	23	4.8	0.11	800
AHW1005C-5N6□TF	5.6	J,K,M	250	25	4.8	0.11	760
AHW1005C-5N8□TF	5.8	J,K,M	250	25	4.8	0.11	760
AHW1005C-6N2□TF	6.2	J,K,M	250	25	4.8	0.11	760
AHW1005C-6N8□TF	6.8	J,K,M	250	24	4.8	0.12	680
AHW1005C-7N2□TF	7.2	J,K,M	250	25	4.8	0.12	680
AHW1005C-7N3□TF	7.3	J,K,M	250	25	4.8	0.12	680
AHW1005C-7N5□TF	7.5	J,K,M	250	25	4.8	0.15	680
AHW1005C-8N2□TF	8.2	J,K,M	250	25	4.4	0.15	680
AHW1005C-8N7□TF	8.7	J,K,M	250	25	4.1	0.20	480
AHW1005C-9N0□TF	9	J,K,M	250	25	4.16	0.15	680
AHW1005C-9N1□TF	9.1	G,J,K,M	250	25	4.16	0.15	680
AHW1005C-9N5□TF	9.5	G,J,K,M	250	24	4	0.20	480
AHW1005C-10N□TF	10	G,J,K,M	250	24	3.9	0.20	480
AHW1005C-11N□TF	11	G,J,K,M	250	26	3.68	0.12	640
AHW1005C-12N□TF	12	G,J,K,M	250	26	3.6	0.12	640
AHW1005C-13N□TF	13	G,J,K,M	250	24	3.45	0.21	440
AHW1005C-15N□TF	15	G,J,K,M	250	26	3.28	0.17	560
AHW1005C-16N□TF	16	G,J,K,M	250	25	3.1	0.25	560
AHW1005C-18N□TF	18	G,J,K,M	250	25	3.1	0.23	420
AHW1005C-19N□TF	19	G,J,K,M	250	26	3.04	0.24	480
AHW1005C-20N□TF	20	G,J,K,M	250	26	3	0.25	420
AHW1005C-22N□TF	22	G,J,K,M	250	25	2.8	0.30	400
AHW1005C-23N□TF	23	G,J,K,M	250	25	2.72	0.30	400
AHW1005C-24N□TF	24	G,J,K,M	250	25	2.7	0.35	400
AHW1005C-27N□TF	27	G,J,K,M	250	25	2.48	0.30	400
AHW1005C-30N□TF	30	G,J,K,M	250	25	2.35	0.40	400
AHW1005C-33N□TF	33	G,J,K,M	250	24	2.35	0.40	400
AHW1005C-36N□TF	36	G,J,K,M	250	25	2.32	0.50	320
AHW1005C-39N□TF	39	G,J,K,M	250	25	2.1	0.55	200
AHW1005C-40N□TF	40	G,J,K,M	250	24	2.24	0.65	320
AHW1005C-43N□TF	43	G,J,K,M	250	25	2.03	0.81	100
AHW1005C-47N□TF	47	G,J,K,M	250	25	2.1	0.83	150
AHW1005C-51N□TF	51	G,J,K,M	250	25	1.75	0.92	100

ELECTRICAL CHARACTERISTICS

AHW1005C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	GHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW1005C-56N□TF	56	G,J,K,M	250	25	1.76	0.97	100
AHW1005C-62N□TF	62	G,J,K,M	250	25	1.62	1.40	100
AHW1005C-68N□TF	68	G,J,K,M	250	25	1.62	1.50	100
AHW1005C-72N□TF	72	G,J,K,M	250	25	1.26	1.70	50
AHW1005C-75N□TF	75	G,J,K,M	250	25	1.26	1.75	50
AHW1005C-77N□TF	77	G,J,K,M	250	25	1.26	1.75	50
AHW1005C-82N□TF	82	G,J,K,M	250	25	1.26	1.80	50
AHW1005C-91N□TF	91	G,J,K,M	250	24	1.16	2.20	30
AHW1005C-R10□TF	100	G,J,K,M	250	24	1.16	2.50	30
AHW1005C-R11□TF	110	G,J,K,M	250	24	1.15	2.60	30
AHW1005C-R12□TF	120	G,J,K,M	250	24	1.1	2.20	30
AHW1005C-R15□TF	150	G,J,K,M	250	10	1	4.00	20

AHW1608C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW1608C-1N5□TF	1.5	S,K,M	250	24	12500	0.03	700
AHW1608C-1N6□TF	1.6	S,K,M	250	24	12500	0.03	700
AHW1608C-1N8□TF	1.8	S,K,M	250	16	12500	0.045	700
AHW1608C-2N0□TF	2	S,K,M	250	12	12500	0.25	700
AHW1608C-2N2□TF	2.2	S,J,K,M	100	12	12500	0.25	700
AHW1608C-2N4□TF	2.4	S,J,K,M	100	8	12500	0.25	700
AHW1608C-2N7□TF	2.7	S,J,K,M	250	22	5900	0.045	700
AHW1608C-3N3□TF	3.3	S,J,K,M	250	22	5900	0.045	700
AHW1608C-3N6□TF	3.6	S,J,K,M	250	22	5900	0.063	700
AHW1608C-3N9□TF	3.9	S,J,K,M	250	22	6900	0.08	700
AHW1608C-4N3□TF	4.3	S,J,K,M	250	22	5900	0.063	700
AHW1608C-4N7□TF	4.7	S,J,K,M	250	20	5800	0.116	700
AHW1608C-5N1□TF	5.1	J,K,M	250	20	5700	0.14	700
AHW1608C-5N6□TF	5.6	J,K,M	250	26	4760	0.075	700
AHW1608C-6N2□TF	6.2	J,K,M	250	20	5700	0.14	700
AHW1608C-6N3□TF	6.3	,J,K,M	250	20	5700	0.14	700
AHW1608C-6N8□TF	6.8	J,K,M	250	27	5800	0.11	700
AHW1608C-7N5□TF	7.5	J,K,M	250	28	4800	0.106	700

ELECTRICAL CHARACTERISTICS

● AHW1608C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW1608C-8N0□TF	8	J,K,M	250	28	4700	0.109	700
AHW1608C-8N2□TF	8.2	,J,K,M	250	30	4200	0.115	700
AHW1608C-8N7□TF	8.7	,J,K,M	250	28	4600	0.109	700
AHW1608C-9N1□TF	9.1	,J,K,M	250	28	5400	0.125	700
AHW1608C-9N5□TF	9.5	,J,K,M	250	28	5400	0.125	700
AHW1608C-10N□TF	10	G,J,K,M	250	31	4800	0.13	700
AHW1608C-11N□TF	11	G,J,K,M	250	30	4000	0.13	700
AHW1608C-12N□TF	12	G,J,K,M	250	35	4000	0.13	700
AHW1608C-13N□TF	13	G,J,K,M	250	35	4000	0.13	700
AHW1608C-15N□TF	15	G,J,K,M	250	35	4000	0.17	700
AHW1608C-16N□TF	16	G,J,K,M	250	34	3300	0.17	700
AHW1608C-18N□TF	18	G,J,K,M	250	35	3100	0.17	700
AHW1608C-20N□TF	20	G,J,K,M	250	36	3000	0.18	700
AHW1608C-22N□TF	22	G,J,K,M	250	38	3000	0.19	700
AHW1608C-23N□TF	23	G,J,K,M	250	38	3000	0.19	700
AHW1608C-24N□TF	24	G,J,K,M	250	36	2650	0.135	700
AHW1608C-27N□TF	27	G,J,K,M	250	40	2800	0.22	600
AHW1608C-30N□TF	30	G,J,K,M	250	37	2250	0.22	600
AHW1608C-33N□TF	33	G,J,K,M	250	40	2300	0.22	600
AHW1608C-36N□TF	36	G,J,K,M	250	37	2080	0.25	600
AHW1608C-39N□TF	39	G,J,K,M	250	40	2200	0.25	600
AHW1608C-43N□TF	43	G,J,K,M	250	38	2000	0.28	600
AHW1608C-47N□TF	47	G,J,K,M	200	38	2000	0.28	600
AHW1608C-51N□TF	51	G,J,K,M	200	35	1900	0.27	600
AHW1608C-56N□TF	56	G,J,K,M	200	38	1900	0.31	600
AHW1608C-60N□TF	60	G,J,K,M	200	37	1800	0.33	600
AHW1608C-62N□TF	62	G,J,K,M	200	37	1800	0.33	600
AHW1608C-68N□TF	68	G,J,K,M	200	37	1700	0.34	600
AHW1608C-72N□TF	72	G,J,K,M	150	34	1700	0.49	400
AHW1608C-75N□TF	75	G,J,K,M	150	28	1700	0.52	400
AHW1608C-82N□TF	82	G,J,K,M	150	34	1700	0.54	400
AHW1608C-85N□TF	85	G,J,K,M	150	34	1700	0.58	400
AHW1608C-91N□TF	91	G,J,K,M	150	28	1600	0.58	400
AHW1608C-R10□TF	100	G,J,K,M	150	34	1400	0.58	400
AHW1608C-R11□TF	110	G,J,K,M	150	32	1350	0.61	300
AHW1608C-R12□TF	120	G,J,K,M	150	32	1300	0.65	300

ELECTRICAL CHARACTERISTICS

AHW1608C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW1608C-R13□TF	130	G,J,K,M	150	32	1150	0.92	290
AHW1608C-R15□TF	150	G,J,K,M	150	28	990	0.92	280
AHW1608C-R16□TF	160	G,J,K,M	150	28	990	1.25	280
AHW1608C-R18□TF	180	G,J,K,M	100	25	990	1.25	240
AHW1608C-R20□TF	200	G,J,K,M	100	25	900	1.98	200
AHW1608C-R22□TF	220	G,J,K,M	100	25	900	2.10	200
AHW1608C-R24□TF	240	G,J,K,M	100	25	900	2.20	200
AHW1608C-R25□TF	250	G,J,K,M	100	25	882	2.55	120
AHW1608C-R27□TF	270	G,J,K,M	100	26	830	2.16	170
AHW1608C-R29□TF	290	G,J,K,M	100	25	800	3.20	100
AHW1608C-R30□TF	300	G,J,K,M	100	25	790	2.50	100
AHW1608C-R33□TF	330	G,J,K,M	100	25	790	3.89	100
AHW1608C-R39□TF	390	G,J,K,M	100	25	780	4.35	100
AHW1608C-R47□TF	470	G,J,K,M	100	25	700	4.50	100
AHW1608C-R56□TF	560	G,J,K,M	100	23	460	5.00	90

AHW2012C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW2012C-2N2□TF	2.2	S,J,K,M	250	50@1GHz	7900	0.06	800
AHW2012C-2N7□TF	2.7	S,J,K,M	250	50@1GHz	7900	0.06	800
AHW2012C-3N0□TF	3	S,J,K,M	250	40@1.5GHz	7900	0.06	800
AHW2012C-3N3□TF	3.3	S,J,K,M	250	40@1.5GHz	7900	0.08	600
AHW2012C-3N6□TF	3.6	S,J,K,M	250	20@1GHz	7900	0.20	200
AHW2012C-3N9□TF	3.9	S,J,K,M	250	20@1GHz	7900	0.20	150
AHW2012C-4N7□TF	4.7	S,J,K,M	250	35@1GHz	6200	0.08	600
AHW2012C-5N1□TF	5.1	S,J,K,M	250	50@1GHz	6200	0.08	600
AHW2012C-5N6□TF	5.6	J,K,M	250	65@1GHz	5900	0.08	600
AHW2012C-6N2□TF	6.2	J,K,M	250	65@1GHz	5900	0.08	600
AHW2012C-6N8□TF	6.8	J,K,M	250	50@1GHz	5600	0.11	600
AHW2012C-7N5□TF	7.5	J,K,M	250	50@1GHz	4800	0.14	600
AHW2012C-8N2□TF	8.2	J,K,M	250	50@1GHz	4400	0.12	600
AHW2012C-9N1□TF	9.1	J,K,M	250	60@500MHz	4300	0.10	600

ELECTRICAL CHARACTERISTICS

● AHW2012C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW2012C-10N□TF	10	J,K,M	250	60@500MHz	4300	0.10	600
AHW2012C-12N□TF	12	J,K,M	250	50@500MHz	4000	0.15	600
AHW2012C-15N□TF	15	J,K,M	250	50@500MHz	3200	0.17	600
AHW2012C-16N□TF	16	J,K,M	250	50@500MHz	3200	0.17	600
AHW2012C-18N□TF	18	J,K,M	250	50@500MHz	3100	0.20	600
AHW2012C-20N□TF	20	J,K,M	250	55@500MHz	2600	0.22	500
AHW2012C-22N□TF	22	G,J,K,M	250	55@500MHz	2600	0.22	500
AHW2012C-23N□TF	23	G,J,K,M	250	50@500MHz	2400	0.22	500
AHW2012C-24N□TF	24	G,J,K,M	250	50@500MHz	2400	0.22	500
AHW2012C-25N□TF	25	G,J,K,M	250	50@500MHz	2450	0.22	500
AHW2012C-27N□TF	27	G,J,K,M	250	55@500MHz	2580	0.25	500
AHW2012C-30N□TF	30	G,J,K,M	250	55@500MHz	2400	0.25	500
AHW2012C-33N□TF	33	G,J,K,M	250	60@500MHz	2150	0.27	500
AHW2012C-36N□TF	36	G,J,K,M	250	55@500MHz	1900	0.27	500
AHW2012C-39N□TF	39	G,J,K,M	250	60@500MHz	1850	0.29	500
AHW2012C-43N□TF	43	G,J,K,M	200	60@500MHz	1800	0.34	500
AHW2012C-47N□TF	47	G,J,K,M	200	60@500MHz	1700	0.31	500
AHW2012C-50N□TF	50	G,J,K,M	200	60@500MHz	1650	0.34	500
AHW2012C-56N□TF	56	G,J,K,M	200	60@500MHz	1600	0.34	500
AHW2012C-62N□TF	62	G,J,K,M	200	60@500MHz	1450	0.36	500
AHW2012C-64N□TF	64	G,J,K,M	200	60@500MHz	1500	0.38	500
AHW2012C-68N□TF	68	G,J,K,M	200	60@500MHz	1500	0.38	500
AHW2012C-72N□TF	72	G,J,K,M	150	60@500MHz	1400	0.38	500
AHW2012C-75N□TF	75	G,J,K,M	150	60@500MHz	1400	0.40	450
AHW2012C-78N□TF	78	G,J,K,M	150	60@500MHz	1400	0.40	450
AHW2012C-82N□TF	82	G,J,K,M	150	65@500MHz	1330	0.42	400
AHW2012C-91N□TF	91	G,J,K,M	150	65@500MHz	1330	0.48	400
AHW2012C-R10□TF	100	G,J,K,M	150	65@500MHz	1250	0.46	400
AHW2012C-R11□TF	110	G,J,K,M	150	50@250MHz	1100	0.48	400
AHW2012C-R12□TF	120	G,J,K,M	150	50@250MHz	1100	0.51	400
AHW2012C-R13□TF	130	G,J,K,M	100	50@250MHz	920	0.56	400
AHW2012C-R14□TF	140	G,J,K,M	100	50@250MHz	920	0.56	400
AHW2012C-R15□TF	150	G,J,K,M	100	50@250MHz	920	0.56	400
AHW2012C-R16□TF	160	G,J,K,M	100	50@250MHz	920	0.60	400
AHW2012C-R18□TF	180	G,J,K,M	100	50@250MHz	920	0.64	400
AHW2012C-R20□TF	200	G,J,K,M	100	50@250MHz	860	0.68	400

ELECTRICAL CHARACTERISTICS

● AHW2012C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW2012C-R21□TF	210	G,J,K,M	100	50@250MHz	820	0.70	400
AHW2012C-R22□TF	220	G,J,K,M	100	50@250MHz	820	0.70	400
AHW2012C-R24□TF	240	G,J,K,M	100	44@250MHz	770	1.00	350
AHW2012C-R25□TF	250	G,J,K,M	100	45@250MHz	750	1.2	350
AHW2012C-R27□TF	270	G,J,K,M	100	48@250MHz	730	1.00	350
AHW2012C-R28□TF	280	G,J,K,M	100	48@250MHz	550	1.35	350
AHW2012C-R29□TF	290	G,J,K,M	150	48@250MHz	450	1.40	310
AHW2012C-R30□TF	300	G,J,K,M	150	48@250MHz	450	1.40	310
AHW2012C-R33□TF	330	G,J,K,M	100	48@250MHz	650	1.40	310
AHW2012C-R36□TF	360	G,J,K,M	100	48@250MHz	630	1.45	300
AHW2012C-R39□TF	390	G,J,K,M	100	48@250MHz	600	1.50	290
AHW2012C-R42□TF	420	G,J,K,M	50	33@100MHz	425	1.70	250
AHW2012C-R43□TF	430	G,J,K,M	50	33@100MHz	425	1.70	250
AHW2012C-R47□TF	470	G,J,K,M	50	33@100MHz	375	1.76	250
AHW2012C-R56□TF	560	G,J,K,M	25	23@50MHz	330	1.90	230
AHW2012C-R62□TF	620	G,J,K,M	25	23@50MHz	320	2.20	210
AHW2012C-R68□TF	680	G,J,K,M	25	23@50MHz	310	2.20	190
AHW2012C-R75□TF	750	G,J,K,M	25	23@50MHz	310	2.30	180
AHW2012C-R82□TF	820	G,J,K,M	25	23@50MHz	310	2.35	180
AHW2012C-R88□TF	880	G,J,K,M	25	23@50MHz	310	2.35	180
AHW2012C-R91□TF	910	G,J,K,M	25	22@50MHz	250	2.45	170
AHW2012C-1R0□TF	1000	J,K,M	25	20@50MHz	220	2.50	170
AHW2012C-1R2□TF	1200	J,K,M	25	20@25MHz	180	2.90	150
AHW2012C-1R5□TF	1500	J,K,M	25	20@25MHz	160	3.30	150
AHW2012C-1R6□TF	1600	J,K,M	25	20@25MHz	140	3.40	150
AHW2012C-1R8□TF	1800	J,K,M	25	20@25MHz	130	3.50	120
AHW2012C-2R2□TF	2200	J,K,M	25	20@25MHz	100	4.50	120
AHW2012C-2R7□TF	2700	J,K,M	25	18@25MHz	80	4.80	100
AHW2012C-3R3□TF	3300	J,K,M	25	18@25MHz	50	6.80	50
AHW2012C-4R7□TF	4700	J,K,M	25	18@25MHz	40	7.00	30

ELECTRICAL CHARACTERISTICS

- AHW2520C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW2520C-4N7□TF	4.7	J,K,M	50	50@500MHz	4100	0.08	1000
AHW2520C-5N6□TF	5.6	J,K,M	50	30@500MHz	4100	0.20	650
AHW2520C-10N□TF	10	J,K,M	50	50@500MHz	4100	0.08	1000
AHW2520C-12N□TF	12	J,K,M	50	50@500MHz	3300	0.09	1000
AHW2520C-15N□TF	15	J,K,M	50	50@500MHz	2500	0.13	1000
AHW2520C-18N□TF	18	J,K,M	50	50@350MHz	2500	0.11	1000
AHW2520C-22N□TF	22	J,K,M	50	55@350MHz	2400	0.12	1000
AHW2520C-27N□TF	27	J,K,M	50	55@350MHz	1600	0.13	1000
AHW2520C-33N□TF	33	J,K,M	50	60@350MHz	1600	0.14	1000
AHW2520C-39N□TF	39	J,K,M	50	60@350MHz	1500	0.15	1000
AHW2520C-47N□TF	47	J,K,M	50	65@350MHz	1500	0.16	1000
AHW2520C-56N□TF	56	J,K,M	50	65@350MHz	1300	0.18	1000
AHW2520C-68N□TF	68	J,K,M	50	65@350MHz	1300	0.20	1000
AHW2520C-91N□TF	91	G,J,K,M	50	60@350MHz	1000	0.56	650
AHW2520C-R10□TF	100	G,J,K,M	25	60@350MHz	1000	0.56	650
AHW2520C-R12□TF	120	G,J,K,M	25	60@350MHz	950	0.63	650
AHW2520C-R15□TF	150	G,J,K,M	25	45@100MHz	850	0.70	580
AHW2520C-R18□TF	180	G,J,K,M	25	45@100MHz	750	0.77	620
AHW2520C-R20□TF	200	G,J,K,M	25	45@100MHz	700	0.84	500
AHW2520C-R22□TF	220	G,J,K,M	25	45@100MHz	700	0.84	500
AHW2520C-R27□TF	270	G,J,K,M	25	45@100MHz	600	0.91	500
AHW2520C-R33□TF	330	G,J,K,M	25	45@100MHz	570	1.05	450
AHW2520C-R39□TF	390	G,J,K,M	25	45@100MHz	500	1.12	470
AHW2520C-R47□TF	470	G,J,K,M	25	45@100MHz	450	1.19	470
AHW2520C-R56□TF	560	G,J,K,M	25	45@100MHz	415	1.33	400
AHW2520C-R68□TF	680	G,J,K,M	25	45@100MHz	375	1.47	400
AHW2520C-R75□TF	750	G,J,K,M	25	45@100MHz	360	1.54	360
AHW2520C-R82□TF	820	G,J,K,M	25	45@100MHz	350	1.61	400
AHW2520C-R91□TF	910	G,J,K,M	25	35@50MHz	320	1.68	380
AHW2520C-1R0□TF	1000	J,K,M	25	35@50MHz	290	1.80	370
AHW2520C-1R2□TF	1200	J,K,M	7.9	35@50MHz	250	2.00	310
AHW2520C-1R5□TF	1500	J,K,M	7.9	28@50MHZ	200	2.30	330
AHW2520C-1R8□TF	1800	J,K,M	7.9	28@50MHZ	160	2.60	300
AHW2520C-2R2□TF	2200	J,K,M	7.9	28@50MHZ	160	2.80	280
AHW2520C-2R7□TF	2700	J,K,M	7.9	22@25MHz	140	3.20	290
AHW2520C-3R3□TF	3300	J,K,M	7.9	22@25MHz	110	3.40	290
AHW2520C-3R9□TF	3900	J,K,M	7.9	20@25MHz	100	3.60	260
AHW2520C-4R7□TF	4700	J,K,M	7.9	20@7.9MHz	60	4.00	260

ELECTRICAL CHARACTERISTICS

AHW2520C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW2520C-5R6□TF	5600	J,K,M	7.9	16@7.9MHz	20	5.70	240
AHW2520C-6R8□TF	6800	J,K,M	7.9	18@7.9MHz	40	7.70	200
AHW2520C-8R2□TF	8200	J,K,M	7.9	18@7.9MHz	25	10.7	170
AHW2520C-100□TF	10000	J,K,M	7.9	18@7.9MHz	25	12.7	100

AHW3216C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW3216C-3N3□TF	3.3	J,K,M	100	20@300MHz	6200	0.07	1000
AHW3216C-6N8□TF	6.8	J,K,M	100	30@300MHz	5500	0.07	1000
AHW3216C-10N□TF	10	J,K,M	100	40@300MHz	4000	0.09	1000
AHW3216C-12N□TF	12	J,K,M	100	40@300MHz	3200	0.09	1000
AHW3216C-15N□TF	15	J,K,M	100	40@300MHz	3200	0.12	1000
AHW3216C-18N□TF	18	J,K,M	100	45@300MHz	2800	0.12	1000
AHW3216C-22N□TF	22	J,K,M	100	50@300MHz	2200	0.12	1000
AHW3216C-27N□TF	27	J,K,M	100	50@300MHz	1800	0.12	1000
AHW3216C-33N□TF	33	J,K,M	100	50@300MHz	1800	0.12	1000
AHW3216C-39N□TF	39	J,K,M	100	50@300MHz	1800	0.12	1000
AHW3216C-47N□TF	47	J,K,M	100	50@300MHz	1500	0.13	1000
AHW3216C-56N□TF	56	J,K,M	100	55@300MHz	1450	0.14	1000
AHW3216C-68N□TF	68	J,K,M	100	55@300MHz	1200	0.26	900
AHW3216C-82N□TF	82	J,K,M	100	55@300MHz	1200	0.21	900
AHW3216C-R10□TF	100	G,J,K,M	100	55@300MHz	1100	0.30	850
AHW3216C-R12□TF	120	G,J,K,M	100	60@300MHz	1100	0.30	800
AHW3216C-R15□TF	150	G,J,K,M	100	55@300MHz	950	0.31	750
AHW3216C-R18□TF	180	G,J,K,M	50	60@300MHz	900	0.43	700
AHW3216C-R20□TF	200	G,J,K,M	50	60@300MHz	760	0.56	670
AHW3216C-R22□TF	220	G,J,K,M	50	60@300MHz	760	0.56	670
AHW3216C-R27□TF	270	G,J,K,M	50	50@300MHz	730	0.56	630
AHW3216C-R33□TF	330	G,J,K,M	50	45@300MHz	650	0.70	590
AHW3216C-R39□TF	390	G,J,K,M	50	45@300MHz	600	1.30	530
AHW3216C-R44□TF	440	G,J,K,M	50	45@150MHz	550	1.30	490
AHW3216C-R47□TF	470	G,J,K,M	50	45@150MHz	550	1.30	490

ELECTRICAL CHARACTERISTICS

● AHW3216C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW3216C-R56□TF	560	G,J,K,M	35	45@150MHz	470	1.34	460
AHW3216C-R62□TF	620	G,J,K,M	35	45@150MHz	470	1.58	430
AHW3216C-R68□TF	680	G,J,K,M	35	45@150MHz	450	1.58	430
AHW3216C-R75□TF	750	G,J,K,M	35	45@150MHz	440	2.25	400
AHW3216C-R82□TF	820	G,J,K,M	35	45@150MHz	420	2.60	400
AHW3216C-R91□TF	910	G,J,K,M	35	45@150MHz	410	4.03	400
AHW3216C-1R0□TF	1000	G,J,K,M	35	45@150MHz	400	4.42	320
AHW3216C-1R2□TF	1200	G,J,K,M	35	45@150MHz	380	5.07	300

● AHW3225C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW3225C-10N□TF	10	J,K,M	100	40@300MHZ	4000	0.08	1000
AHW3225C-12N□TF	12	J,K,M	100	40@300MHZ	3200	0.08	1000
AHW3225C-15N□TF	15	J,K,M	100	40@300MHZ	3200	0.20	1000
AHW3225C-18N□TF	18	J,K,M	100	50@300MHZ	2800	0.10	1000
AHW3225C-22N□TF	22	J,K,M	100	50@300MHZ	2200	0.10	1000
AHW3225C-27N□TF	27	J,K,M	100	50@300MHZ	1800	0.11	1000
AHW3225C-33N□TF	33	J,K,M	100	55@300MHZ	1800	0.11	1000
AHW3225C-39N□TF	39	J,K,M	100	55@300MHZ	1500	0.12	1000
AHW3225C-43N□TF	43	J,K,M	100	55@300MHZ	1500	0.12	1000
AHW3225C-47N□TF	47	J,K,M	100	55@300MHZ	1500	0.13	1000
AHW3225C-56N□TF	56	J,K,M	100	55@300MHZ	1450	0.14	1000
AHW3225C-68N□TF	68	J,K,M	100	55@300MHZ	1200	0.15	900
AHW3225C-82N□TF	82	J,K,M	100	55@300MHZ	1000	0.20	900
AHW3225C-91N□TF	91	J,K,M	100	60@300MHZ	1100	0.20	1000
AHW3225C-R10□TF	100	G,J,K,M	100	55@300MHZ	900	0.20	850
AHW3225C-R12□TF	120	G,J,K,M	100	60@300MHZ	800	0.25	800
AHW3225C-R15□TF	150	G,J,K,M	100	60@300MHZ	700	0.30	750
AHW3225C-R18□TF	180	G,J,K,M	50	60@300MHZ	650	0.30	700
AHW3225C-R22□TF	220	G,J,K,M	50	60@300MHZ	650	0.40	770
AHW3225C-R24□TF	240	G,J,K,M	50	40@300MHZ	580	0.40	630
AHW3225C-R27□TF	270	G,J,K,M	50	40@300MHZ	580	0.40	630

ELECTRICAL CHARACTERISTICS

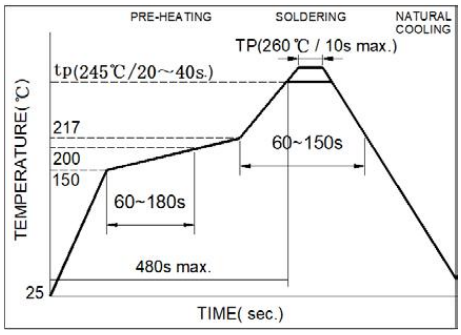
- AHW3225C Series

Part Number	Inductance	Inductance Tolerance	L Test Freq.	Quality Factor	Self-resonant Frequency	DC Resistance	Rating Current
				Min.	Min.	Max.	Max.
Unit	nH	-	MHz	-	MHz	Ω	mA
Symbol	L	-	Freq.	Q	S.R.F	DCR	Irms
AHW3225C-R33□TF	330	G,J,K,M	50	45@150MHZ	580	0.58	590
AHW3225C-R36□TF	360	G,J,K,M	50	45@150MHZ	510	0.58	530
AHW3225C-R39□TF	390	G,J,K,M	50	45@150MHZ	510	0.58	530
AHW3225C-R47□TF	470	G,J,K,M	50	45@150MHZ	480	1.00	490
AHW3225C-R56□TF	560	G,J,K,M	25	45@150MHZ	420	1.10	460
AHW3225C-R68□TF	680	G,J,K,M	25	45@150MHZ	400	1.20	430
AHW3225C-R82□TF	820	G,J,K,M	25	45@150MHZ	370	2.00	400
AHW3225C-1R0□TF	1000	G,J,K,M	25	45@150MHZ	340	1.85	320
AHW3225C-1R2□TF	1200	J,K,M	25	45@150MHZ	220	2.30	300
AHW3225C-1R5□TF	1500	J,K,M	7.9	20@50MHZ	160	2.70	310
AHW3225C-1R8□TF	1800	J,K,M	7.9	30@50MHZ	160	3.50	310
AHW3225C-2R2□TF	2200	J,K,M	7.9	25@50MHZ	130	2.41	310
AHW3225C-2R7□TF	2700	J,K,M	7.9	25@50MHZ	110	3.50	300
AHW3225C-3R0□TF	3000	J,K,M	7.9	20@25MHZ	110	3.50	300
AHW3225C-3R3□TF	3300	J,K,M	7.9	20@25MHZ	60	3.60	290
AHW3225C-3R9□TF	3900	J,K,M	7.9	20@25MHZ	60	4.00	290
AHW3225C-4R7□TF	4700	J,K,M	7.9	20@25MHZ	60	5.00	280
AHW3225C-5R2□TF	5200	J,K,M	7.9	15@25MHZ	50	6.00	250
AHW3225C-5R6□TF	5600	J,K,M	7.9	15@25MHZ	50	6.00	250
AHW3225C-6R8□TF	6800	J,K,M	7.9	15@7.9MHZ	40	9.00	230
AHW3225C-7R5□TF	7500	J,K,M	7.9	20@7.9MHZ	50	9.50	170
AHW3225C-8R2□TF	8200	J,K,M	7.9	20@7.9MHZ	50	9.50	170
AHW3225C-8R6□TF	8600	J,K,M	7.9	15@7.9MHZ	40	9.00	200
AHW3225C-100□TF	10000	J,K,M	7.9	15@7.9MHZ	30	10.0	150

- All test data is referenced to 20°C ambient.
- Rating DC current: Temperature rise(△T) is 40℃ approximately at Irms.
- Storage temp.: -10℃ ~ +40℃ R.H.: 60% Max.
- Moisture sensitivity level (MSL) 1.

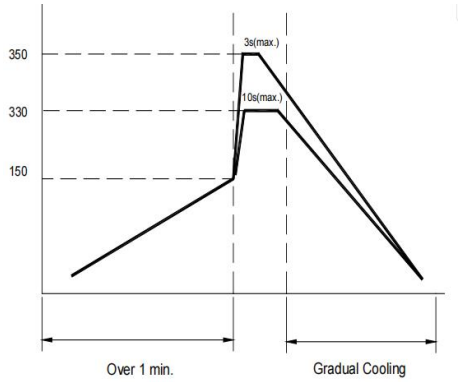
RECOMMENDED SOLDERING TECHNOLOGIES

- Re-flow Soldering (Lead Free)
- ☆ Preheat circuit and products to 150℃
- ☆ 260℃ tip temperature (max)
- ☆ Reflow times: no more than 2 times
- ☆ Solder paste thickness: the best 0.08mm is ,but max is 0.1mm



- Note: The reflow profile in the above table is only for qualification and is not meant to specify board assembly profiles. Actual board assembly profiles must be based on the customer's specific board design, solder paste and process, and should not exceed the parameters as the Reflow profile shows.

- Hand Soldering
- ☆ Use a 20 watt soldering iron with tip diameter of 1.0mm
- ☆ Limit soldering time to 3 sec



- Note: Take care not to apply the tip of the soldering iron to the terminal electrodes.

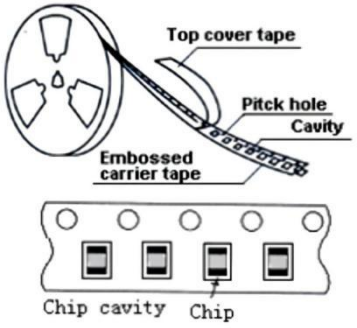
RELIABILITY TEST

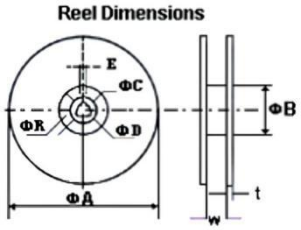
Test Item	Test Requirements	Test Conditions
Terminal Strength	No defects	Apply specified static load vertically to terminals, hold for 30±1s. Verify no terminal detachment from component body.
Board Flex	1. No visible mechanical damage 2. ΔL/L ≤ 10% 3. ΔQ/Q ≤ 10%	Precondition: 2x reflow soldering. Samples soldered onto PCB with tinned terminals. Apply static load gradually, T: 60±5s, board deflection ≤ 2.0mm
High Temperature	1. No visible mechanical damage 2. ΔL/L ≤ 10% 3. ΔQ/Q ≤ 10%	Test temperature: 125±3℃, Test duration: 1000+24h. Stabilize 24±4h at ambient before measurement
Damp Heat, Steady State	1. No visible mechanical damage 2. ΔL/L ≤ 10% 3. ΔQ/Q ≤ 10%	Test temperature: 85±3℃, Test humidity: 85±3%RH, Duration: 1000+24h. Samples shall bestabilized 24±4h at ambient before measurement
Thermal Shock	1. No visible mechanical damage 2. ΔL/L ≤ 10% 3. ΔQ/Q ≤ 10%	Test temperature: -40±3℃/30min ↔ 125±3℃ /30min, 1000 cycles. Samples shall be stabilized 24±4h at ambient before measurement
Endurance (Operational Life)	1. No visible mechanical damage 2. ΔL/L ≤ 10% 3. ΔQ/Q ≤ 10%	Test temperature: 125±3℃, Test duration: 1000h, rated current: 1.0A. Samples shall be stabilized 24±4h at ambient before measurement
Vibration	1. No visible mechanical damage 2. ΔL/L ≤ 10% 3. ΔQ/Q ≤ 10%	Frequency range: (10~2000~10)Hz, 5G acceleration 20min, peak-to-peak amplitude: 1.5mm, 12 cycles across 3 axes. Stabilize 1~2 h at ambient before measurement
Resistance to Soldering Heat	1. No visible mechanical damage 2. ΔL/L ≤ 10% 3. ΔQ/Q ≤ 10%	Test temperature: 260℃, Duration: T:7.0min, 1x reflow preconditioning. Solder paste: Sn/3.0Ag/0.5Cu. Stabilize 1~2 h at ambient before measurement.
Mechanical Shock	1. No visible mechanical damage 2. ΔL/L ≤ 10% 3. ΔQ/Q ≤ 10%	1. Pulse duration: 6ms; Waveform: half-sine; Peak: 100G; Velocity change (Vi): 12.3 ft/s. 2. Direction: ±X, ±Y, ±Z axes; 3 shocks per axis(18 shocks total). Stabilize at ambient for 1~2 h before measurement.
ESD Test	1. No visible mechanical damage 2. ΔL/L ≤ 10%	Discharge method: Contact discharge, voltage level: ±8kV

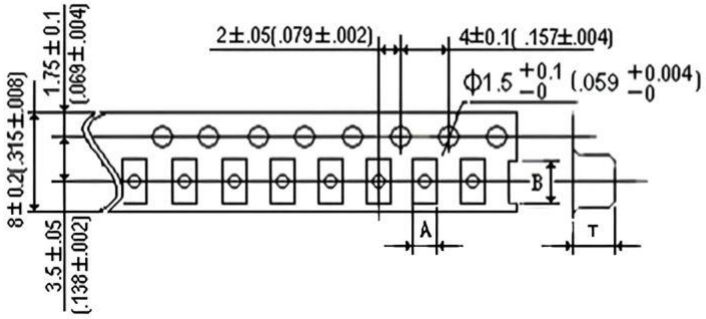
PACKAGING

- Packaging type: Strapping packaging.
- 1005~3225 Series

Unit: mm(inch)

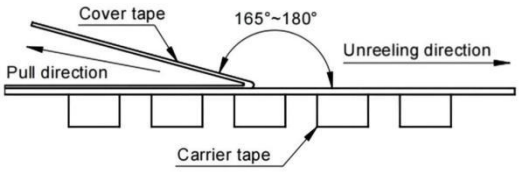






Type	A	B	T	ΦA	ΦB	ΦC	ΦD	E	W	t
1005	0.74	1.23	0.75	178	60	13	21	2.0	8.4	2.0
1608	1.15	1.83	0.95	178	60	13	21	2.0	8.4	2.0
2012	1.85	2.40	1.45	178	60	13	21	2.0	8.4	2.0
2520	2.96	3.60	2.40	178	60	13	21	2.0	8.4	2.0
3216	1.95	3.60	1.50	178	60	13	21	2.0	8.4	2.0
3225	2.96	3.60	2.40	178	60	13	21	2.0	8.4	2.0

- Peeling off force
- Pull strength 1608~2012:20g~80g.
- Speed of peeling off:300mm/min ±10%.



- Packing Quantity.

Series	Quantity/Reel
AHW1005C	10000Pcs
AHW1608C	4000Pcs
AHW2012C	2000Pcs
AHW2520C	2000Pcs
AHW3216C	2000Pcs
AHW3225C	2000Pcs

PRECAUTIONS ON USE

- Precautions on Use.

1.Always wear static control bands to protect against ESD.
2.Any devices used with the products (soldering irons, measuring instruments) should be properly grounded.
3.Keep bare hands and metal conductors (i.e., metal desk) away from electrodes or conductive areas that lead to electrodes.
4.Preheat when soldering.
5.Don't apply current in excess of the rated current value. It may reduce the impedance or inductance, or cause damage to components due to over-current.
6.For magnetic products, keep clear of anything that may generate magnetic fields such as speakers and coils. Use non-magnetic tweezers when handing the chips.
7.When soldering, the electrical characteristics may be varied due to hot energy and mechanical stress.
8.When coating products with resin, the relatively high resin curing stress may change the electrical characteristics. For exterior coating, select resin carefully so that electrical and mechanical performance of the product is not affected. Before using, please evaluate reliability with the product mounted in your application set.
9.When mount chips with adhesive in preliminary assembly, do appropriate check before the soldering stage, i.e., the size of land pattern, type of adhesive, amount applied, hardening of the adhesive on proper usage and amounts of adhesive to use.
10.Mounting density: Add special attention to radiating heat of products when mounting other components nearby. The excessive heat by other products may cause deterioration at joint of this product with substrate.
11.Since some products are constructed like an open magnetic circuit, narrow spacing between components may cause magnetic coupling.
12.Please do not give the product any excessive mechanical shocks in transportation.
13.Please do not touch wires by sharp terminals such as tweezers to avoid causing any damage to wires.
14.Please do not add any shock and power to the soldered product to avoid causing any damage to chip body.
15.Please do not touch the electrodes by naked hand as the solderability of the external electrodes may deteriorate by grease or oil on the skin.
16.Magnetic materials shall be far away from parts to avoid impacts on their electrical characteristics;
17.Parts could be damaged by external mechanical pressure or stacked heavy objects, as well as strong shaking & dropping;
18.Please do not store parts in bulk to prevent coils and parts being damaged;
19.Oversized external force to parts on PCB may lead to parts being damaged or slipped off;
20.Please do not use parts on edge or top of PCB board in your design to avoid parts being damaged during PCB is moved.
21.Please use flux contained with resin since the highly acidic (Chlorine content more than 0.2 wt%) or water-soluble one could damage the insulation film of wires, then causing short circuit of parts.
22.Please do not use the brush to clean product or its surroundings. If you use the brush to clean product or its surroundings on PCB,copper wire may be broke, causing the product open.
23.Avoid strong solvents, strong alkalis and chlorine-based cleaners. They swell and soften the UV coating, which may dissolve and peel off, damaging device appearance and partial functions.
24.Avoid ultrasonic processing, which may cause component falling off and poor pad contact.
25.When using APV products, customers should record the production batch number for traceability.



SAFETY REMINDERS

SAFETY REMINDERS

● All products listed in this specification are developed, designed and intended for use in general electronics equipment. The products are not designed or Warranted to meet the requirements of the applications listed below, whose performance and/or quality require especially high reliability, or whose failure, malfunction or trouble might directly cause damage to society, person, or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below. Please contact us for more details if you intend to use our products in the following applications.

☆ 1.Aerospace/aviation equipment

☆ 2.Transportation equipment (cars, electric trains, ships, etc.)

☆ 3.Medical equipment

☆ 4.Power-generation control equipment

☆ 5.Atomic energy-related equipment

☆ 6.Seabed equipment

☆ 7.Transportation control equipment

☆ 8.Public information-processing equipment

☆ 9.Military equipment

☆ 10.Electric heating apparatus, burning equipment

☆ 11.Disaster prevention/crime prevention equipment

☆ 12.Safety equipment

☆ 13.Other applications that are not considered general-purpose applications

● When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.