

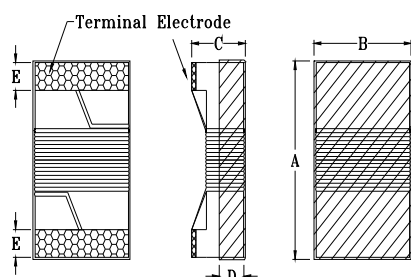
High Frequency Winding Type Chip Inductor SWI0402F-SERIES-HC

1. Features

1. Ceramic core wire wound construction.
2. No batch to batch variations in inductance.
3. High Reliability due to ceramic wire wound construction.
4. High frequency application.
5. Small footprint as well as low profile.
6. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
7. Operating temperature-40~+125°C (Including self - temperature rise)



2. Dimensions



Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
SWI0402	1.09±0.10	0.60±0.10	0.56±0.10	0.25±0.15	0.23±0.10

Unit:mm

3. Part Numbering

SWI	0402	F	-	1N2	S	-	HC
A	B	C		D	E		F

A: Series

B: Dimension

C: Material

D: Inductance

E: Inductance Tolerance

F: Control S/N

LxW

Ceramic

1N2=1.2nH

B=±0.1nH, C=±0.2nH, S=±0.3nH, G=±2%, J=±5%, K=±10%.

4. Specification

Part Number	Inductance (nH)	Tolerance	Q min.	Test Frequency (Hz)	Isat(mA) max.	Irms(mA) max.	DCR (Ω) max.	SRF (GHz) min.
SWI0402F-1N2□-HC	1.2	B, C S, J, K	10	0.2V/250M	640	640	0.140	10.40
SWI0402F-2N2□-HC	2.2	B, C S, J, K	19	0.2V/250M	960	960	0.070	10.80
SWI0402F-2N4□-HC	2.4	B, C S, J, K	15	0.2V/250M	790	790	0.068	10.50
SWI0402F-2N7□-HC	2.7	B, C, J, K	16	0.2V/250M	640	640	0.120	10.40
SWI0402F-3N3□-HC	3.3	B, C, J, K	19	0.2V/250M	840	840	0.066	7.00
SWI0402F-3N6□-HC	3.6	B, C, J, K	19	0.2V/250M	840	840	0.066	6.80
SWI0402F-3N9□-HC	3.9	B, C, J, K	19	0.2V/250M	840	840	0.066	6.00
SWI0402F-4N3□-HC	4.3	B, C, J, K	18	0.2V/250M	700	700	0.091	6.00
SWI0402F-4N7□-HC	4.7	B, C, J, K	15	0.2V/250M	640	640	0.130	4.77
SWI0402F-5N6□-HC	5.6	J, K	20	0.2V/250M	760	760	0.083	4.80
SWI0402F-6N2□-HC	6.2	J, K	20	0.2V/250M	760	760	0.083	4.80
SWI0402F-6N8□-HC	6.8	J, K	20	0.2V/250M	680	680	0.083	4.80

Part Number	Inductance (nH)	Tolerance	Q min.	Test Frequency (Hz)	Isat(mA) max.	Irms(mA) max.	DCR (Ω) max.	SRF (GHz) min.
SWI0402F-7N5□-HC	7.5	J,K	22	0.2V/250M	680	680	0.100	4.80
SWI0402F-8N2□-HC	8.2	J,K	22	0.2V/250M	680	680	0.100	4.40
SWI0402F-8N7□-HC	8.7	J,K	18	0.2V/250M	480	480	0.200	4.10
SWI0402F-9N0□-HC	9.0	J,K	22	0.2V/250M	680	680	0.100	4.16
SWI0402F-9N5□-HC	9.5	J,K	18	0.2V/250M	480	480	0.200	4.00
SWI0402F-10N□-HC	10	J,K	21	0.2V/250M	480	480	0.200	3.90
SWI0402F-11N□-HC	11	J,K	24	0.2V/250M	640	640	0.120	3.68
SWI0402F-12N□-HC	12	J,K	24	0.2V/250M	640	640	0.120	3.60
SWI0402F-13N□-HC	13	J,K	24	0.2V/250M	440	440	0.210	3.45
SWI0402F-15N□-HC	15	J,K	24	0.2V/250M	560	560	0.170	3.28
SWI0402F-16N□-HC	16	J,K	24	0.2V/250M	560	560	0.220	3.10
SWI0402F-18N□-HC	18	J,K	25	0.2V/250M	420	420	0.230	3.10
SWI0402F-19N□-HC	19	J,K	24	0.2V/250M	480	480	0.200	3.04
SWI0402F-20N□-HC	20	J,K	25	0.2V/250M	420	420	0.250	3.00
SWI0402F-22N□-HC	22	J,K	25	0.2V/250M	400	400	0.300	2.80
SWI0402F-23N□-HC	23	J,K	22	0.2V/250M	400	400	0.300	2.72
SWI0402F-24N□-HC	24	J,K	25	0.2V/250M	400	400	0.300	2.70
SWI0402F-27N□-HC	27	J,K	24	0.2V/250M	400	400	0.300	2.48
SWI0402F-30N□-HC	30	G,J,K	25	0.2V/250M	400	400	0.350	2.35
SWI0402F-33N□-HC	33	G,J,K	24	0.2V/250M	400	400	0.400	2.35
SWI0402F-36N□-HC	36	G,J,K	24	0.2V/250M	320	320	0.440	2.32
SWI0402F-39N□-HC	39	G,J,K	25	0.2V/250M	200	200	0.550	2.10
SWI0402F-40N□-HC	40	G,J,K	24	0.2V/250M	320	320	0.650	2.24
SWI0402F-43N□-HC	43	G,J,K	25	0.2V/250M	100	100	0.810	2.03
SWI0402F-47N□-HC	47	G,J,K	25	0.2V/250M	150	150	0.830	2.10
SWI0402F-51N□-HC	51	G,J,K	25	0.2V/250M	100	100	0.820	1.75
SWI0402F-56N□-HC	56	G,J,K	22	0.2V/250M	100	100	0.970	1.76
SWI0402F-68N□-HC	68	G,J,K	22	0.2V/250M	100	100	1.120	1.62
SWI0402F-77N□-HC	77	J,K	22	0.2V/250M	50	50	1.800	1.26
SWI0402F-82N□-HC	82	J,K	22	0.2V/250M	50	50	1.550	1.26
SWI0402F-R10□-HC	100	J,K	22	0.2V/250M	30	30	2.000	1.16
SWI0402F-R12□-HC	120	J,K	22	0.2V/250M	50	50	2.400	1.00

Note:

Rated Current: 15°C rise above 25°C ambient.

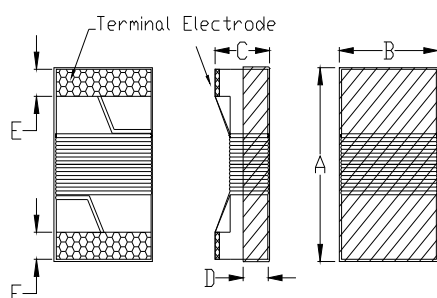
High Frequency Winding Type Chip Inductor SWI0603F-SERIES

1. Features

1. Ceramic core wire wound construction.
2. No batch to batch variations in inductance
3. High Reliability due to ceramic wire wound construction.
4. High frequency application.
5. Small footprint as well as low profile.
6. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
7. Operating temperature -40~+125°C (Including self - temperature rise)



2. Dimensions



Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
SWI0603	1.80 max.	1.20 max.	1.20 max.	0.38 ref.	0.35±0.10

Unit:mm

3. Part Numbering

SWI	0603	F	-	2N0	S
A	B	C		D	E

A: Series
 B: Dimension LxW
 C: Lead free type
 D: Inductance 2N0=2.0nH
 E: Inductance Tolerance C=±0.2nH , S=±0.3nH , J=±5% , K=±10%

4. Specification

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q @ 250MHz min.	Rated Current (mA) max.	DCR (Ω) max.	SRF (MHz) min.
SWI0603F-2N0□	2.0	C,S	0.1V/250M	13	700	0.07	8000
SWI0603F-3N9□	3.9	C,S	0.1V/250M	22	700	0.07	6900
SWI0603F-4N7□	4.7	C,K	0.1V/250M	20	700	0.12	5800
SWI0603F-6N8□	6.8	C,J,K	0.1V/250M	27	700	0.08	5800
SWI0603F-8N2□	8.2	C,J,K	0.1V/250M	30	700	0.13	4200
SWI0603F-10N□	10	J,K	0.1V/250M	31	700	0.13	4800
SWI0603F-12N□	12	J,K	0.1V/250M	35	700	0.13	4000
SWI0603F-15N□	15	J,K	0.1V/250M	35	700	0.13	4000
SWI0603F-18N□	18	J,K	0.1V/250M	35	700	0.16	3100

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q @ 250MHz min.	Rated Current (mA) max.	DCR (Ω) max.	SRF (MHz) min.
SWI0603F-22N□	22	J,K	0.1V/250M	38	700	0.23	3000
SWI0603F-24N□	24	J,K	0.1V/250M	38	700	0.13	2800
SWI0603F-27N□	27	J,K	0.1V/250M	40	600	0.14	2800
SWI0603F-33N□	33	J,K	0.1V/250M	40	600	0.22	2300
SWI0603F-39N□	39	J,K	0.1V/250M	40	600	0.30	2200
SWI0603F-47N□	47	J,K	0.1V/200M	38	600	0.35	2000
SWI0603F-56N□	56	J,K	0.1V/200M	38	600	0.37	1900
SWI0603F-68N□	68	J,K	0.1V/200M	37	600	0.43	1700
SWI0603F-72N□	72	J,K	0.1V/150M	34	400	0.42	1700
SWI0603F-82N□	82	J,K	0.1V/150M	34	400	0.71	1700
SWI0603F-R10□	100	J,K	0.1V/150M	34	400	0.78	1400
SWI0603F-R12□	120	J,K	0.1V/150M	32	300	0.84	1300
SWI0603F-R15□	150	J,K	0.1V/150M	28	280	0.96	990
SWI0603F-R18□	180	J,K	0.1V/100M	25	240	1.52	990
SWI0603F-R22□	220	J,K	0.1V/100M	25	200	2.02	900
SWI0603F-R27□	270	J,K	0.1V/100M	24	170	2.36	900
SWI0603F-R33□	330	J,K	0.1V/100M	24	185	3.40	700
SWI0603F-R39□	390	J,K	0.1V/100M	24	100	3.60	900

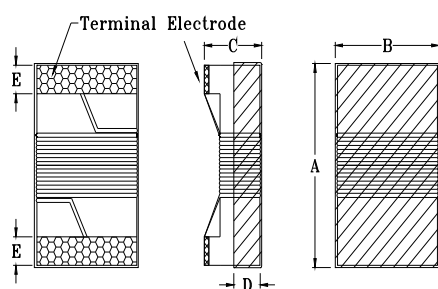
High Frequency Winding Type Chip Inductor SWI0805F-SERIES

1. Features

1. Ceramic core wire wound construction.
2. No batch to batch variations in inductance
3. High Reliability due to ceramic wire wound construction.
4. High frequency application.
5. Small footprint as well as low profile.
6. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
7. Operating temperature -40~+125°C (Including self - temperature rise)



2. Dimensions



Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
SWI0805	2.40 max.	1.60 max.	1.40 max.	0.51 ref.	0.44±0.10

Unit:mm

3. Part Numbering

SWI	0805	F	-	2N0	S
A	B	C		D	E

A: Series
 B: Dimension LxW
 C: Lead free type
 D: Inductance 2N0=2.0nH
 E: Inductance Tolerance C=±0.2nH, S=±0.3nH, J=±5%, K=±10%

4. Specification

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q min.	Test Frequency (MHz)	Rated Current (mA) max.	DCR (Ω) max.	SRF (MHz) min.
SWI0805F-2N0□	2.0	C,S	0.1V/250M	70	1500	800	0.03	8000
SWI0805F-3N9□	3.9	C,S	0.1V/250M	70	1500	800	0.04	5750
SWI0805F-4N7□	4.7	C,S	0.1V/250M	70	1500	800	0.04	5750
SWI0805F-6N8□	6.8	C,J,K	0.1V/250M	70	1500	800	0.06	5500
SWI0805F-7N5□	7.5	C,J,K	0.1V/250M	70	1000	800	0.06	4500
SWI0805F-8N2□	8.2	C,J,K	0.1V/250M	70	1000	800	0.06	4700
SWI0805F-10N□	10	J,K	0.1V/250M	70	1000	600	0.08	4200
SWI0805F-12N□	12	J,K	0.1V/250M	80	1000	600	0.08	4000
SWI0805F-15N□	15	J,K	0.1V/250M	80	1000	600	0.10	3400

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q min.	Test Frequency (MHz)	Rated Current (mA) max.	DCR (Ω) max.	SRF (MHz) min.
SWI0805F-18N□	18	J,K	0.1V/250M	80	1000	600	0.10	3300
SWI0805F-22N□	22	J,K	0.1V/250M	60	500	600	0.12	2600
SWI0805F-24N□	24	J,K	0.1V/250M	60	500	600	0.12	2000
SWI0805F-27N□	27	J,K	0.1V/250M	60	500	600	0.12	2500
SWI0805F-33N□	33	J,K	0.1V/250M	60	500	600	0.13	2050
SWI0805F-36N□	36	J,K	0.1V/250M	65	500	600	0.13	1700
SWI0805F-39N□	39	J,K	0.1V/250M	65	500	600	0.15	2000
SWI0805F-43N□	43	J,K	0.1V/200M	65	500	600	0.15	1650
SWI0805F-47N□	47	J,K	0.1V/200M	65	500	600	0.17	1650
SWI0805F-56N□	56	J,K	0.1V/200M	65	500	600	0.19	1550
SWI0805F-68N□	68	J,K	0.1V/200M	60	500	500	0.22	1450
SWI0805F-82N□	82	J,K	0.1V/150M	55	500	400	0.40	1300
SWI0805F-R10□	100	J,K	0.1V/150M	55	500	400	0.52	1200
SWI0805F-R11□	110	J,K	0.1V/150M	55	500	400	0.52	1200
SWI0805F-R12□	120	J,K	0.1V/150M	50	250	400	0.55	1100
SWI0805F-R15□	150	J,K	0.1V/150M	50	250	400	0.73	920
SWI0805F-R18□	180	J,K	0.1V/100M	50	250	400	0.88	870
SWI0805F-R22□	220	J,K	0.1V/100M	50	250	340	1.18	850
SWI0805F-R24□	240	J,K	0.1V/100M	48	250	330	1.20	690
SWI0805F-R27□	270	J,K	0.1V/100M	48	250	310	1.36	650
SWI0805F-R33□	330	J,K	0.1V/100M	40	250	300	1.40	600
SWI0805F-R39□	390	J,K	0.1V/100M	25	250	290	1.50	560
SWI0805F-R47□	470	J,K	0.1V/50M	25	100	250	1.76	375
SWI0805F-R56□	560	J,K	0.1V/25M	23	100	210	1.90	340
SWI0805F-R62□	620	J,K	0.1V/25M	23	100	205	2.00	220
SWI0805F-R68□	680	J,K	0.1V/25M	23	100	200	2.15	200
SWI0805F-R75□	750	J,K	0.1V/25M	20	100	185	2.25	200
SWI0805F-R82□	820	J,K	0.1V/25M	20	100	170	2.50	200
SWI0805F-1R0□	1000	J,K	0.1V/25M	15	50	170	2.60	100

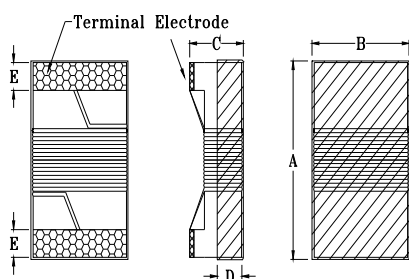
High Frequency Winding Type Chip Inductor SWI0805UF-SERIES

1. Features

1. Ceramic core wire wound construction.
2. No batch to batch variations in inductance
3. High Reliability due to ceramic wire wound construction.
4. High frequency application.
5. Small footprint as well as low profile.
6. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
7. Operating temperature-40~+125°C (Including self - temperature rise)



2. Dimensions



Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
SWI0805	2.29 max.	1.73 max.	1.52 max.	0.51 ref.	0.44±0.10

Unit:mm

3. Part Numbering

SWI	0805	UF	-	2N8	S
A	B	C		D	E

A: Series

B: Dimension

LxW

C: Material

D: Inductance

2N8=2.8nH

E: Inductance Tolerance

C=±0.2nH, S=±0.3nH, G=±2%, J=±5%

4. Specification

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q @ Test Freq. min.	Rated Current (mA) max.	DCR (Ω) max.	SRF (MHz) min.
SWI0805UF-2N8□	2.8	C,S	0.1V/250M	80/1500	800	0.06	7900
SWI0805UF-3N0□	3.0	C,S	0.1V/250M	65/1500	800	0.06	7900
SWI0805UF-3N3□	3.3	C,S	0.1V/250M	50/1500	600	0.08	7900
SWI0805UF-5N6□	5.6	C,S	0.1V/250M	65/1000	600	0.08	5500
SWI0805UF-6N8□	6.8	C,J	0.1V/250M	50/1000	600	0.11	5500
SWI0805UF-7N5□	7.5	C,J	0.1V/250M	50/1000	600	0.14	4500
SWI0805UF-8N2□	8.2	C,J	0.1V/250M	50/1000	600	0.12	4700
SWI0805UF-10N□	10	G,J	0.1V/250M	60/500	600	0.10	4200
SWI0805UF-12N□	12	G,J	0.1V/250M	50/500	600	0.15	4000
SWI0805UF-15N□	15	G,J	0.1V/250M	50/500	600	0.17	3400
SWI0805UF-18N□	18	G,J	0.1V/250M	50/500	600	0.20	3300
SWI0805UF-22N□	22	G,J	0.1V/250M	55/500	500	0.22	2600
SWI0805UF-24N□	24	G,J	0.1V/250M	50/500	500	0.22	2000
SWI0805UF-27N□	27	G,J	0.1V/250M	55/500	500	0.25	2500
SWI0805UF-33N□	33	G,J	0.1V/250M	60/500	500	0.27	2050

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q @ Test Freq. min.	Rated Current (mA) max.	DCR (Ω) max.	SRF (MHz) min.
SWI0805UF-36N□	36	G,J	0.1V/250M	55/500	500	0.27	1700
SWI0805UF-39N□	39	G,J	0.1V/250M	60/500	500	0.29	2000
SWI0805UF-43N□	43	G,J	0.1V/200M	60/500	500	0.34	1650
SWI0805UF-47N□	47	G,J	0.1V/200M	60/500	500	0.31	1650
SWI0805UF-56N□	56	G,J	0.1V/200M	60/500	500	0.34	1550
SWI0805UF-68N□	68	G,J	0.1V/200M	60/500	500	0.38	1450
SWI0805UF-82N□	82	G,J	0.1V/150M	65/500	400	0.42	1300
SWI0805UF-91N□	91	G,J	0.1V/150M	65/500	400	0.48	1200
SWI0805UF-R10□	100	G,J	0.1V/150M	65/500	400	0.46	1200
SWI0805UF-R11□	110	G,J	0.1V/150M	50/250	400	0.48	1000
SWI0805UF-R12□	120	G,J	0.1V/150M	50/250	400	0.51	1100
SWI0805UF-R15□	150	G,J	0.1V/100M	50/250	400	0.56	920
SWI0805UF-R18□	180	G,J	0.1V/100M	50/250	400	0.64	870
SWI0805UF-R20□	200	G,J	0.1V/100M	50/250	400	0.68	860
SWI0805UF-R22□	220	G,J	0.1V/100M	50/250	400	0.70	850
SWI0805UF-R24□	240	G,J	0.1V/100M	44/250	350	1.00	690
SWI0805UF-R25□	250	G,J	0.1V/100M	45/250	350	1.20	660
SWI0805UF-R27□	270	G,J	0.1V/100M	48/250	350	1.00	650
SWI0805UF-R33□	330	G,J	0.1V/100M	48/250	310	1.40	600
SWI0805UF-R39□	390	G,J	0.1V/100M	48/250	290	1.50	560
SWI0805UF-R47□	470	G,J	0.1V/50M	33/100	250	1.70	375
SWI0805UF-R56□	560	G,J	0.1V/25M	23/50	230	1.90	340
SWI0805UF-R62□	620	G,J	0.1V/25M	23/50	210	2.20	220
SWI0805UF-R68□	680	G,J	0.1V/25M	23/50	190	2.20	188
SWI0805UF-R82□	820	G,J	0.1V/25M	23/50	180	2.35	215
SWI0805UF-1R0□	1000	G,J	0.1V/25M	15/50	170	2.5	100
SWI0805UF-1R2□	1200	G,J	0.1V/7.9M	18/25	170	2.5	100

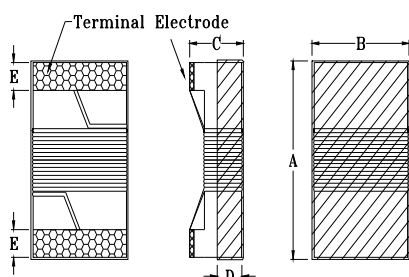
High Frequency Winding Type Chip Inductor SWI1008UF-SERIES

1. Features

1. Ceramic core wire wound construction.
2. No batch to batch variations in inductance
3. High Reliability due to ceramic wire wound construction.
4. High frequency application.
5. Small footprint as well as low profile.
6. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
7. Operating temperature $-40\sim+125^{\circ}\text{C}$ (Including self - temperature rise)



2. Dimensions



Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
SWI1008	2.92 max.	2.79 max.	2.20 max.	1.20 ref.	0.55±0.10

Unit:mm

3. Part Numbering

SWI	1008	U	F	-	10N	J
A	B	C	D		E	F

A: Series

B: Dimension

LxW

C: Material

D: Lead Free Code

E: Inductance

10N=10nH

F: Inductance Tolerance

G=±2%, J=±5%, K=±10%

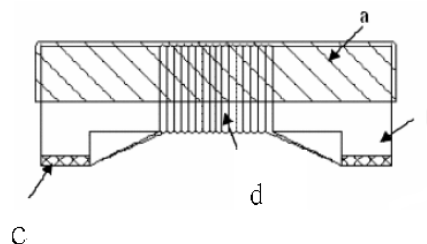
4. Specification

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q min.	Test Frequency (MHz)	Rated Current (mA) max.	DCR (Ω) max.	SRF (MHz) min.
SWI1008UF-10N□	10	G, J, K	0.1V/50M	50	500	1000	0.08	4100
SWI1008UF-12N□	12	G, J, K	0.1V/50M	50	500	1000	0.09	3300
SWI1008UF-15N□	15	G, J, K	0.1V/50M	50	500	1000	0.18	2500
SWI1008UF-18N□	18	G, J, K	0.1V/50M	50	350	1000	0.11	2500
SWI1008UF-22N□	22	G, J, K	0.1V/50M	55	350	1000	0.12	2400
SWI1008UF-27N□	27	G, J, K	0.1V/50M	55	350	1000	0.13	1600
SWI1008UF-33N□	33	G, J, K	0.1V/50M	60	350	1000	0.14	1600
SWI1008UF-39N□	39	G, J, K	0.1V/50M	60	350	1000	0.15	1500
SWI1008UF-47N□	47	G, J, K	0.1V/50M	65	350	1000	0.16	1500
SWI1008UF-56N□	56	G, J, K	0.1V/50M	65	350	1000	0.18	1300
SWI1008UF-68N□	68	G, J, K	0.1V/50M	65	350	1000	0.20	1300
SWI1008UF-82N□	82	G, J, K	0.1V/50M	60	350	1000	0.22	1000
SWI1008UF-R10□	100	G, J, K	0.1V/25M	60	350	650	0.56	1000
SWI1008UF-R12□	120	G, J, K	0.1V/25M	60	350	650	0.63	950

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q min.	Test Frequency (MHz)	Rated Current (mA) max.	DCR (Ω) max.	SRF (MHz) min.
SWI1008UF-R15□	150	G, J, K	0.1V/25M	45	100	580	0.70	850
SWI1008UF-R18□	180	G, J, K	0.1V/25M	45	100	620	0.77	750
SWI1008UF-R22□	220	G, J, K	0.1V/25M	45	100	500	0.84	700
SWI1008UF-R27□	270	G, J, K	0.1V/25M	45	100	500	0.91	600
SWI1008UF-R33□	330	G, J, K	0.1V/25M	45	100	450	1.05	570
SWI1008UF-R39□	390	G, J, K	0.1V/25M	45	100	470	1.12	500
SWI1008UF-R47□	470	G, J, K	0.1V/25M	45	100	470	1.19	450
SWI1008UF-R56□	560	G, J, K	0.1V/25M	45	100	400	1.33	415
SWI1008UF-R62□	620	G, J, K	0.1V/25M	45	100	300	1.40	375
SWI1008UF-R68□	680	G, J, K	0.1V/25M	45	100	400	1.47	375
SWI1008UF-R75□	750	G, J, K	0.1V/25M	45	100	360	1.54	360
SWI1008UF-R82□	820	G, J, K	0.1V/25M	45	100	400	1.61	350
SWI1008UF-R91□	910	G, J, K	0.1V/25M	35	50	380	1.68	320
SWI1008UF-1R0□	1000	G, J, K	0.1V/25M	35	50	370	1.75	290
SWI1008UF-1R2□	1200	G, J, K	0.1V/7.9M	35	50	310	2.00	250
SWI1008UF-1R5□	1500	G, J, K	0.1V/7.9M	28	50	330	2.23	200
SWI1008UF-1R8□	1800	G, J, K	0.1V/7.9M	28	50	300	2.60	160
SWI1008UF-2R2□	2200	G, J, K	0.1V/7.9M	28	50	280	2.80	160
SWI1008UF-2R7□	2700	G, J, K	0.1V/7.9M	22	25	290	3.20	140
SWI1008UF-3R3□	3300	G, J, K	0.1V/7.9M	22	25	290	3.40	110
SWI1008UF-3R9□	3900	G, J, K	0.1V/7.9M	20	25	260	3.60	100
SWI1008UF-4R7□	4700	G, J, K	0.1V/7.9M	18	7.9	200	4.00	32
SWI1008UF-5R6□	5600	G, J, K	0.1V/7.9M	18	7.9	200	4.00	25
SWI1008UF-6R8□	6800	G, J, K	0.1V/7.9M	18	7.9	200	4.90	21
SWI1008UF-8R2□	8200	G, J, K	0.1V/7.9M	16	7.9	170	6.00	16
SWI1008UF-100□	10000	G, J, K	0.1V/2.52M	15	7.9	170	8.00	14

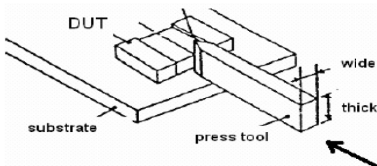
5. Materials

No.	Description	Specification
a.	Upper Plate	UV Glue
b.	Core	Ceramics Core
c.	Termination	Ag/Ni/Sn
d.	Wire	Enameled Copper Wire



6. Reliability and Test Condition

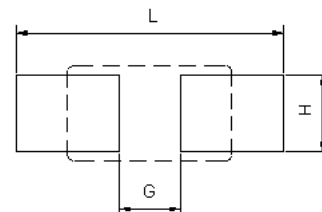
Item	Performance	Test Condition
Operating temperature	-40~+125℃ (Including self - temperature rise)	
Storage temperature	-40~+125℃ (on board)	
Electrical Performance Test		
Inductance L	Refer to standard electrical characteristic list	Agilent E4991A , Keysight E4991B ,Keysight 4980AL
Q		Agilent-4287, Agilent-4285
SRF		Agilent E4991A , Keysight E4991B
DC Resistance		Agilent-34420A Agilent-4338B
Rated Current		Applied the current to coils, the inductance change shall be less than 20% to initial value.
Reliability Test		
Life Test	Appearance : No damage. Inductance : within±10% of initial value Q : Shall not exceed the specification value. RDC : within ±15% of initial value and shall not exceed the specification value	Preconditioning: Run through reflow for 3 times.(IPC/JEDEC J-STD-020E Classification Reflow Profiles) Temperature : 125±2℃ Applied current : rated current Duration : 1000±12hrs Measured at room temperature after placing for 24 hrs.
Load Humidity		Preconditioning: Run through reflow for 3 times.(IPC/JEDEC J-STD-020E Classification Reflow Profiles) Humidity : 85±3% R.H, Temperature : 85℃±2℃ Duration : 1000hrs Min. Bead : with 100% rated current , Inductance : with 10% rated current Measured at room temperature after placing for 24hrs.
Moisture Resistance		Preconditioning: Run through reflow for 3 times.(IPC/JEDEC J-STD-020E Classification Reflow Profiles) 1. Baked at 50℃ for 25hrs, measured at room temperature after placing for 4 hrs. 2. Raise temperature to 65±2℃ 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25℃ in 2.5hrs. 3. Raise temperature to 65±2℃ 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25℃ in 2.5hrs, keep at 25℃ for 2hrs then keep at -10℃ for 3hrs. 4. Keep at 25℃ 80-100%RH for 15min and vibrate at the frequency of 10 to 55 Hz to 10 Hz, measured at room temperature after placing for 1~2 hrs.
Thermal shock		Preconditioning: Run through reflow for 3 times.(IPC/JEDEC J-STD-020E Classification Reflow Profiles) Condition for 1 cycle Step1 : -40±2℃ 30±5min Step2 : 125±2℃ ≤0.5min Step3 : 125±2℃ 30±5min Number of cycles : 500 Measured at room temperature after placing for 24 hrs.
Vibration		Preconditioning: Run through reflow for 3 times.(IPC/JEDEC J-STD-020E Classification Reflow Profiles) Oscillation Frequency : 10Hz~2kHz~10Hz for 20 minutes Equipment : Vibration checker Total Amplitude : 10g Testing Time : 12 hours (20 minutes, 12 cycles each of 3 orientations)

Item	Performance	Test Condition														
Bending	Appearance : No damage. Inductance : within±10% of initial value Q : Shall not exceed the specification value. RDC : within ±15% of initial value and shall not exceed the specification value	Shall be mounted on a FR4 substrate of the following dimensions: >=0805 inch(2012mm):40x100x1.2mm <0805 inch(2012mm):40x100x0.8mm Bending depth: >=0805 inch(2012mm):1.2mm <0805 inch(2012mm):0.8mm duration of 10 sec.														
Shock		<table><tr><th>Type</th><th>Peak value (g's)</th><th>Normal duration (D) (ms)</th><th>Wave form</th><th>Velocity change (V)/ft/sec</th></tr><tr><td>SMD</td><td>50</td><td>11</td><td>Half-sine</td><td>11.3</td></tr><tr><td>Lead</td><td>50</td><td>11</td><td>Half-sine</td><td>11.3</td></tr></table> 3 shocks in each direction along 3 perpendicular axes. (18 shocks).	Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (V)/ft/sec	SMD	50	11	Half-sine	11.3	Lead	50	11	Half-sine
Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (V)/ft/sec												
SMD	50	11	Half-sine	11.3												
Lead	50	11	Half-sine	11.3												
Solderability	More than 95% of the terminal electrode should be covered with solder	a. Method B, 4hrs @155°C dry heat @235°C±5°C Testing Time : 5 +0/-0.5 seconds b. Method D category 3. (8hours ± 15 min)@ 260°C±5°C Testing Time : 30 +0/-0.5 seconds														
Resistance to Soldering Heat		Depth: completely cover the termination <table><tr><th>Temperature(°C)</th><th>Time(s)</th><th>Temperature ramp/immersion and emersion rate</th><th>Number of heat cycles</th></tr><tr><td>260 ±5 (solder temp)</td><td>10 ±1</td><td>25mm/s ±6 mm/s</td><td>1</td></tr></table>	Temperature(°C)	Time(s)	Temperature ramp/immersion and emersion rate	Number of heat cycles	260 ±5 (solder temp)	10 ±1	25mm/s ±6 mm/s	1						
Temperature(°C)	Time(s)	Temperature ramp/immersion and emersion rate	Number of heat cycles													
260 ±5 (solder temp)	10 ±1	25mm/s ±6 mm/s	1													
Terminal Strength	Appearance : No damage. Inductance : within±10% of initial value Q : Shall not exceed the specification value. RDC : within ±15% of initial value and shall not exceed the specification value	Preconditioning: Run through reflow for 3 times.(IPC/JEDEC J-STD-020E Classification Reflow Profiles) With the component mounted on a PCB with the device to be tested, apply a force (>0805:1kg , <=0805:0.5kg) to the side of a device being tested. This force shall be applied for 60 +1 seconds. Also the force shall be applied gradually as not to apply a shock to the component being tested. 														

7. Soldering and Mounting

7-1. Recommended PC Board Pattern

Chip size							Land Patterns For Reflow Soldering		
Series	Type	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	L(mm)	G(mm)	H(mm)
SWI	0402	1.09±0.1	0.60±0.1	0.56±0.1	0.20±0.15	0.23±0.1	1.46	0.46	0.66
SWI	0603	1.80max	1.20max	1.20max	0.38 ref	0.35±0.1	1.92	0.90	1.02
SWI	0805F	2.40max	1.60max	1.40max	0.51 ref	0.44±0.1	2.80	1.29	1.78
SWI	0805UF	2.29max	1.73max	1.52max	0.51 ref	0.44±0.1	2.80	1.25	1.78
SWI	1008	2.92max	2.79max	2.20max	1.20 ref	0.55±0.1	3.31	1.526	2.54



7-2. Soldering

Mildly activated rosin fluxes are preferred. TAI-TECH terminations are suitable for re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

7-2.1 Soldering Reflow:

Recommended temperature profiles for lead free re-flow soldering in Figure 1. Table 1.1&1.2 (J-STD-020E)

7-2.2 Soldering Iron:

Products attachment with a soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended. (Figure 2.)

- Preheat circuit and products to 150°C
- Never contact the ceramic with the iron tip
- Use a 20 watt soldering iron with tip diameter of 1.0mm
- 350°C tip temperature (max)
- 1.0mm tip diameter (max)
- Limit soldering time to 4~5sec.

Fig.1 Soldering Reflow

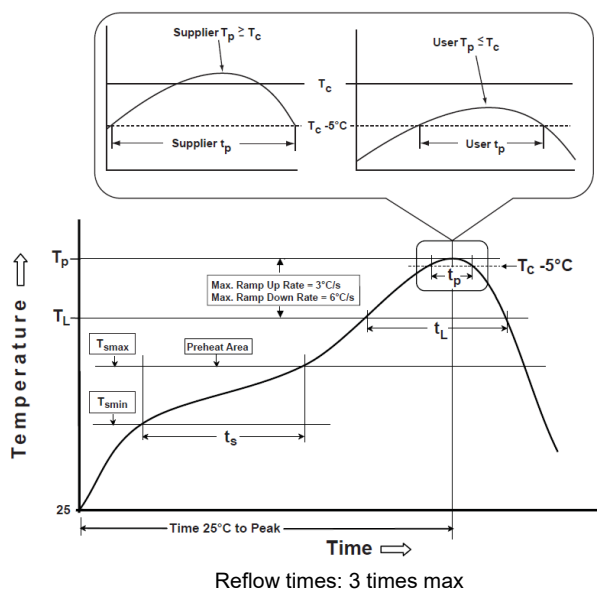


Fig.2 Iron soldering temperature profiles

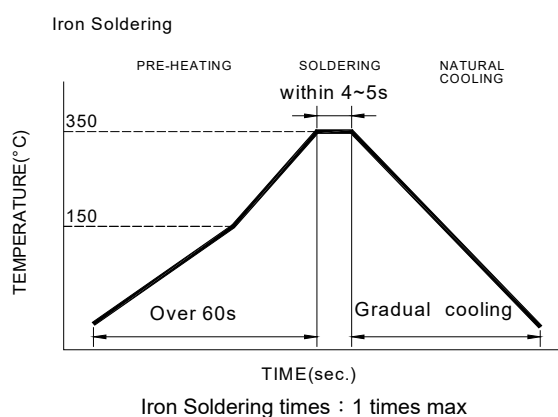


Table (1.1): Reflow Profiles

Profile Type:	Pb-Free Assembly
Preheat -Temperature Min(T_{smin}) -Temperature Max(T_{smax}) -Time(t_s)from(T_{smin} to T_{smax})	150°C 200°C 60-120seconds
Ramp-up rate(T_L to T_p)	3°C /second max.
Liquidus temperature(T_L) Time(t_L)maintained above T_L	217°C 60-150 seconds
Classification temperature(T_c)	See Table (1.2)
Time(t_p) at $T_c - 5^\circ\text{C}$ (T_p should be equal to or less than T_c .)	< 30 seconds
Ramp-down rate(T_p to T_L)	6°C /second max.
Time 25°C to peak temperature	8 minutes max.

T_p : maximum peak package body temperature, T_c : the classification temperature.

For user (customer) T_p should be equal to or less than T_c .

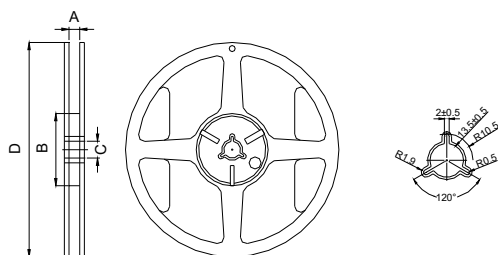
Table (1.2) Package Thickness/Volume and Classification Temperature (T_c)

	Package Thickness	Volume mm ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000
PB-Free Assembly	<1.6mm	260°C	260°C	260°C
	1.6-2.5mm	260°C	250°C	245°C
	≥2.5mm	250°C	245°C	245°C

Reflow is referred to standard IPC/JEDEC J-STD-020E °

8. Packaging Information

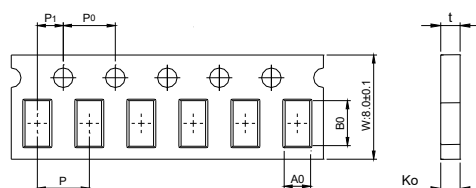
8-1. Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	8.4±0.5	60.0±2.0	13.5±0.5	178.0±2.0

8-2. Tape Dimension / 8mm

■ Material of taping is paper

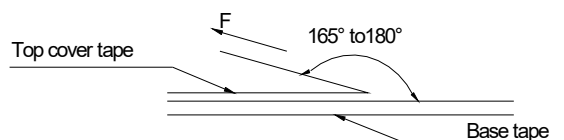


Series	Size	P(mm)	Po(mm)	P1(mm)	Bo(mm)	Ao(mm)	Ko(mm)	t(mm)
SWI	0402	2.0±0.1	4.0±0.1	2.0±0.1	1.20±0.1	0.80±0.1	0.62±0.1	0.75±0.1

8-3. Packaging Quantity

Chip size	0402
Reel	4000
Reel Size	7"x8mm

8-4. Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

• Storage Conditions(component level)

To maintain the solderability of terminal electrodes:

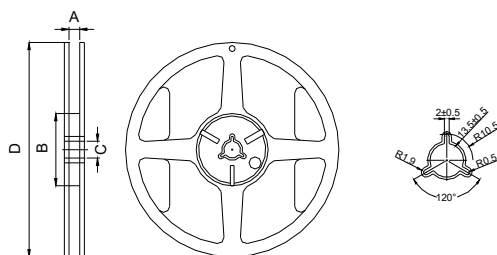
1. TAI-TECH products meet IPC/JEDEC J-STD-020E standard-MSL, level 1.
2. Temperature and humidity conditions: Less than 40°C and 60% RH.
3. Recommended products should be used within 12 months from the time of delivery.
4. The packaging material should be kept where no chlorine or sulfur exists in the 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.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

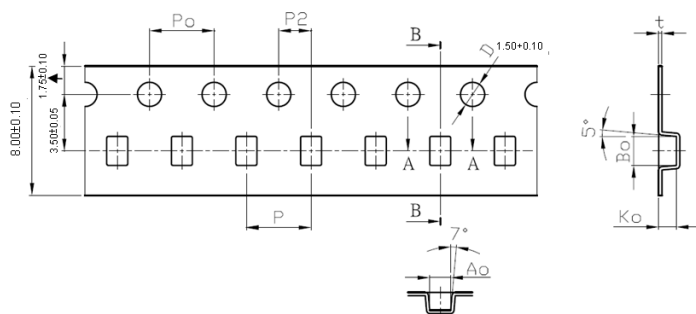
8. Packaging Information

8-1. Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	8.4±0.5	60.0±2.0	13.5±0.5	178.0±2.0

8-2.1 Tape Dimension / 8mm(black anti-static electricity carrier tape)

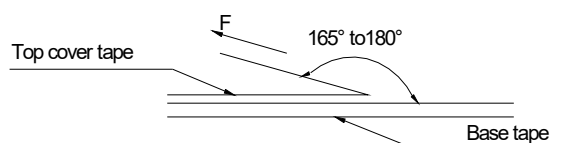


Series	P(mm)	P0(mm)	P2(mm)	Bo(mm)	Ao(mm)	Ko(mm)	t(mm)
SWI0603	4.00±0.10	4.00±0.10	2.00±0.05	1.88±0.05	1.30±0.05	1.10±0.05	0.20±0.02

8-3. Packaging Quantity

Chip size	0603
Reel	3000
Reel Size	7"x8mm

8-4. Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

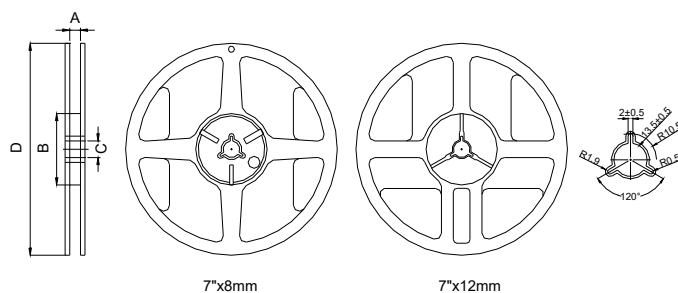
Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

- Storage Conditions(component level)
To maintain the solderability of terminal electrodes:
 1. TAI-TECH products meet IPC/JEDEC J-STD-020E standard-MSL, level 1.
 2. Temperature and humidity conditions: Less than 40°C and 60% RH.
 3. Recommended products should be used within 12 months from 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.
 3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

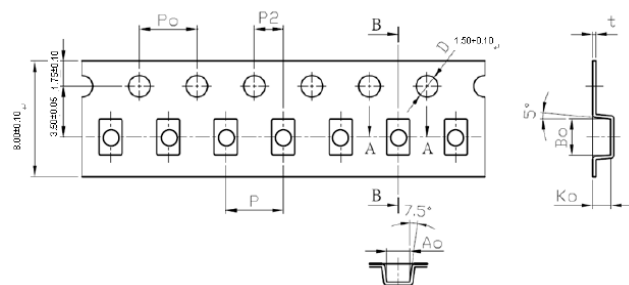
8. Packaging Information

8-1. Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	8.4±0.5	60.0±2.0	13.5±0.5	178.0±2.0

8-2. Tape Dimension / 8mm

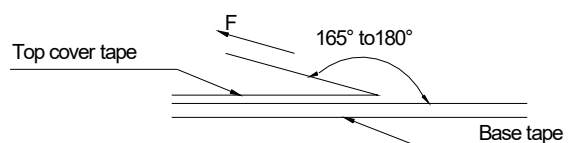


Series	P(mm)	P0(mm)	P2(mm)	B0(mm)	A0(mm)	K0(mm)	W(mm)	t(mm)
SWI0805F	4.00±0.10	4.00±0.10	2.00±0.05	2.50±0.10	1.60±0.10	1.25±0.10	8.00±0.10	0.22±0.05

8-3. Packaging Quantity

SWI	0805F
Chip / Reel	2000
Reel Size	7"x8mm

8-4. Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

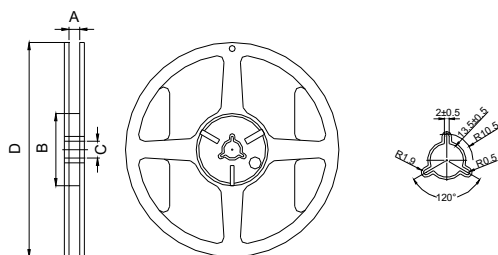
Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

- Storage Conditions(component level)
To maintain the solderability of terminal electrodes:
 1. TAI-TECH products meet IPC/JEDEC J-STD-020E standard-MSL, level 1.
 2. Temperature and humidity conditions: Less than 40°C and 60% RH.
 3. Recommended products should be used within 12 months from 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.
 3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

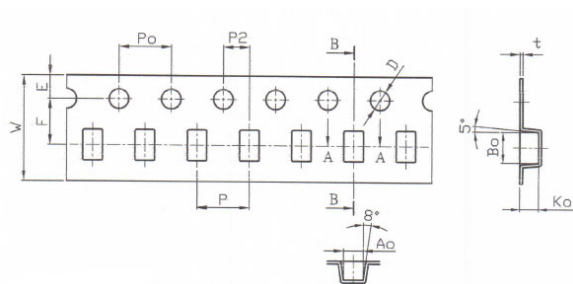
8. Packaging Information

8-1. Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	8.4±0.5	60.0±2.0	13.5±0.5	178.0±2.0

8-2. Tape Dimension / 8mm

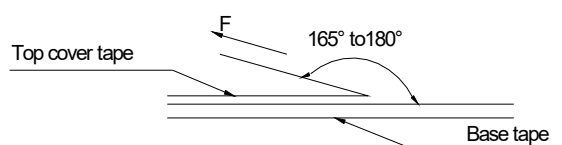


Series	W(mm)	P(mm)	E(mm)	F(mm)	P2(mm)	D(mm)	P0(mm)	A0(mm)	B0(mm)	K0(mm)	t(mm)
SWI0805UF	8.00±0.10	4.00±0.10	1.75±0.10	3.50±0.05	2.00±0.05	1.50+0.10/-0.00	4.00±0.10	1.80±0.10	2.30±0.10	1.60±0.10	0.23±0.05

8-3. Packaging Quantity

Chip size	0805UF
Reel	2000
Reel Size	7"x8mm

8-4. Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

• Storage Conditions(component level)

To maintain the solderability of terminal electrodes:

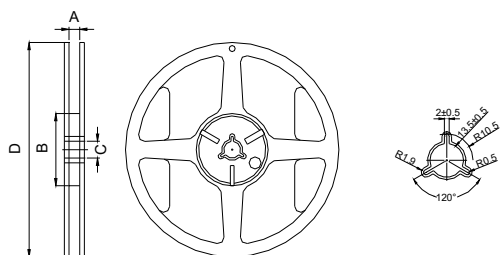
1. TAI-TECH products meet IPC/JEDEC J-STD-020E standard-MSL, level 1.
2. Temperature and humidity conditions: Less than 40°C and 60% RH.
3. Recommended products should be used within 12 months form the time of delivery.
4. The packaging material should be kept where no chlorine or sulfur exists in the 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.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

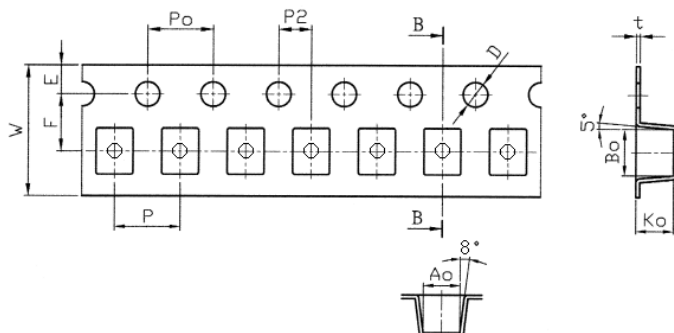
8. Packaging Information

8-1. Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	8.4±0.5.0	60.0±2.0	13.5±0.5	178.0±2.0

8-2.1 Tape Dimension / 8mm

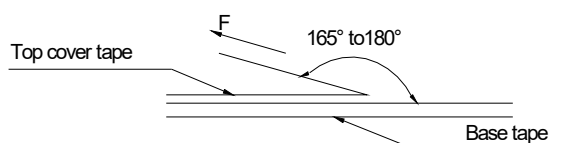


Series	W(mm)	P(mm)	E(mm)	F(mm)	P2(mm)	D(mm)	P0(mm)	A0(mm)	B0(mm)	K0(mm)	t(mm)
SW1008	8.00±0.10	4.00±0.10	1.75±0.10	3.50±0.05	2.00±0.05	1.50+0.10/-0.00	4.00±0.10	2.61±0.10	2.93±0.10	2.25±0.10	0.26±0.05

8-3. Packaging Quantity

Chip size	1008
Reel	2000
Reel Size	7"x8mm

8-4. Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

• Storage Conditions(component level)

To maintain the solderability of terminal electrodes:

1. TAI-TECH products meet IPC/JEDEC J-STD-020E standard-MSL, level 1.
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