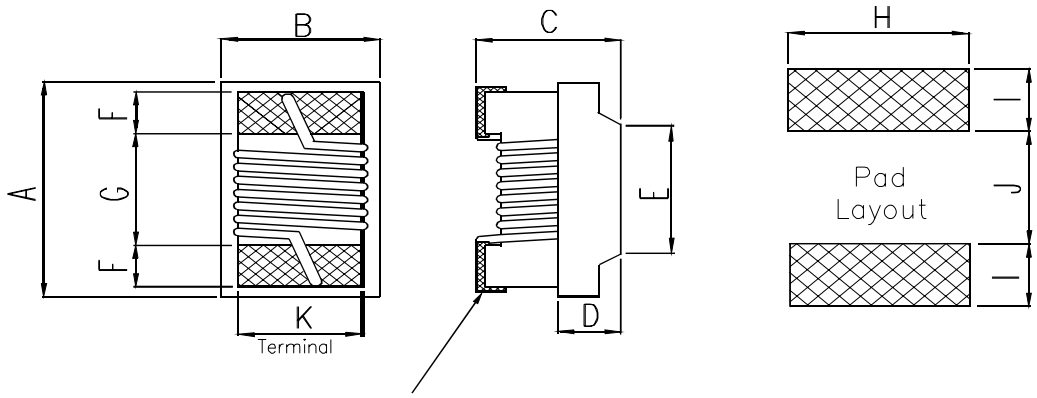
Specification For Approval

AXIS POWER 經軸電子

Wire-Wound Chip Inductor 0603 (160808) Series

Shape & Dimension



Terminal wraparound:

approx. 0.0098/0.25 both ends

	A		B		C		D	E	F	G	H	I	J	K
	Max.	Ref	Max.	Ref	Max.	Ref	Ref.	Ref.						
inch	0.071	0.065	0.044	0.041	0.040	0.035	0.015	0.039	0.013	0.034	0.040	0.025	0.025	0.030
mm	1.80	1.65	1.12	1.03	1.02	0.90	0.38	1.00	0.33	0.86	1.02	0.64	0.64	0.76

Parts/Reel: 7” 4,000

Tape Width: 8mm

＊零件外觀色點為生產線別標示，不代表感值特性，外觀色點以實際出貨為準＊

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Part Number	Inductance (nH)	Percent Tolerance	Q Min	SRF Min MHz	RDC Max Ohms	IDC Max mA	900MHz L Typ	900MHz Q Typ	1.7GHz L Typ	1.7GHz Q Typ	Color code
BCCWH-160808-1N6☐	1.6@250MHz	10,5	24	12500	0.030	700	1.53	35	1.58	55	Blue
BCCWH-160808-1N8☐	1.8@250MHz	10,5	16	12500	0.045	700	1.63	35	1.66	50	Black
BCCWH-160808-2N2☐	2.2@250MHz	10,5	15	6000	0.10	700	2.18	41	2.20	64	White
BCCWH-160808-2N3☐	2.3@250MHz	10,5	16	>4000	0.14	700	2.32	32	2.35	40	Yellow
BCCWH-160808-3N3☐	3.3@250MHz	10,5,2	22	>6000	0.080	700	3.35	47	3.40	65	Red
BCCWH-160808-3N6☐	3.6@250MHz	10,5,2	22	5800	0.063	700	3.53	49	3.58	65	Violet
BCCWH-160808-3N9☐	3.9@250MHz	10,5,2	22	>6000	0.080	700	3.95	49	3.96	67	Brown
BCCWH-160808-4N3☐	4.3@250MHz	10,5,2	22	5800	0.063	700	4.32	49	4.43	67	Orange
BCCWH-160808-4N5☐	4.5@250MHz	10,5,2	20	5800	0.120	700	4.74	55	4.87	92	Gray
BCCWH-160808-4N7☐	4.7@250MHz	10,5,2	25	5800	0.120	700	4.65	53	4.80	67	Violet
BCCWH-160808-5N1☐	5.1@250MHz	10,5,2	20	5800	0.160	700	5.13	47	5.36	56	Green
BCCWH-160808-5N6☐	5.6@250MHz	10,5,2	20	5800	0.170	700	5.53	56	5.86	77	Yellow
BCCWH-160808-6N2☐	6.2@250MHz	10,5,2	25	5800	0.110	700	6.28	60	6.40	85	Black
BCCWH-160808-6N3☐	6.3@250MHz	10,5,2	25	5800	0.110	700	6.67	41	6.86	61	Black
BCCWH-160808-6N8☐	6.8@250MHz	10,5,2	27	5800	0.110	700	6.75	60	7.10	81	Red
BCCWH-160808-7N5☐	7.5@250MHz	10,5,2	28	4800	0.106	700	7.70	60	7.82	65	Brown
BCCWH-160808-8N2☐	8.2@250MHz	10,5,2	27	4800	0.110	700	8.25	64	8.40	81	Green
BCCWH-160808-8N7☐	8.7@250MHz	10,5,2	28	4600	0.109	700	8.86	62	9.32	58	Yellow
BCCWH-160808-9N1☐	9.1@250MHz	10,5,2	35	4800	0.130	700	9.20	70	9.70	80	Black
BCCWH-160808-9N5☐	9.5@250MHz	10,5,2	28	5400	0.135	700	9.70	59	9.92	61	Blue
BCCWH-160808-10N☐	10.0@250MHz	10,5,2	31	4800	0.130	700	10.00	66	10.60	83	Orange
BCCWH-160808-11N☐	11.0@250MHz	10,5,2	31	4000	0.086	700	11.30	53	12.10	56	Gray
BCCWH-160808-12N☐	12.0@250MHz	10,5,2	35	4000	0.130	700	12.30	72	13.50	83	Yellow
BCCWH-160808-15N☐	15.0@250MHz	10,5,2	35	4000	0.170	700	15.40	64	16.80	89	Green
BCCWH-160808-16N☐	16.0@250MHz	10,5,2	35	3300	0.110	700	16.50	55	18.00	52	White
BCCWH-160808-17N☐	17.0@250MHz	10,5,2	35	3200	0.170	700	17.60	56	19.40	44	Red
BCCWH-160808-18N☐	18.0@250MHz	10,5,2	35	3100	0.170	700	18.70	70	21.40	69	Blue
BCCWH-160808-20N☐	20.0@250MHz	10,5,2	40	3000	0.190	700	20.70	80	23.50	30	Green
BCCWH-160808-22N☐	22.0@250MHz	10,5,2	38	3000	0.190	700	22.80	73	26.10	71	Violet
BCCWH-160808-23N☐	23.0@250MHz	10,5,2	38	2850	0.190	700	24.10	71	28.00	71	Orange
BCCWH-160808-24N☐	24.0@250MHz	10,5,2	38	2800	0.130	700	25.70	45	30.90	40	Black
BCCWH-160808-27N☐	27.0@250MHz	10,5,2	40	2800	0.220	600	29.20	74	34.60	65	Gray
BCCWH-160808-30N☐	30.0@250MHz	10,5,2	40	2800	0.150	600	31.40	47	39.80	28	Brown
BCCWH-160808-33N☐	33.0@250MHz	10,5,2	40	2300	0.220	600	36.00	67	49.50	42	White
BCCWH-160808-36N☐	36.0@250MHz	10,5,2	40	2300	0.250	600	39.10	47	48.90	24	Red
BCCWH-160808-39N☐	39.0@250MHz	10,5,2	40	2200	0.250	600	42.70	60	60.20	40	Black
BCCWH-160808-43N☐	43.0@200MHz	10,5,2	38	2000	0.280	600	46.90	44	60.30	21	Orange
BCCWH-160808-47N☐	47.0@200MHz	10,5,2	38	2000	0.280	600	52.20	62	77.20	35	Brown
BCCWH-160808-51N☐	51.0@200MHz	10,5,2	38	1900	0.280	600	55.50	69	82.20	34	Blue
BCCWH-160808-56N☐	56.0@200MHz	10,5,2	38	1900	0.310	600	62.50	56	97.00	26	Red
BCCWH-160808-62N☐	62.0@200MHz	10,5,2	37	1800	0.340	600	68.00	40	110.0	10	Gray
BCCWH-160808-68N☐	68.0@200MHz	10,5,2	37	1700	0.340	600	80.50	54	168.0	21	Orange
BCCWH-160808-72N☐	72.0@150MHz	10,5,2	34	1700	0.490	400	82.00	53	135.0	20	Yellow
BCCWH-160808-82N☐	82.0@150MHz	10,5,2	34	1700	0.540	400	96.20	54	177.0	21	Green
BCCWH-160808-91N☐	91.0@150MHz	10,5,2	30	1700	0.500	400	110	50	416.4	6	Brown
BCCWH-160808-R10☐	100@150MHz	10,5,2	34	1400	0.580	400	124	49	319.5	13	Blue
BCCWH-160808-R11☐	110@150MHz	10,5,2	32	1350	0.610	300	138	43	342.7	15	Violet
BCCWH-160808-R12☐	120@150MHz	10,5,2	32	1300	0.650	300	166	39	529.3	8	Gray
BCCWH-160808-R13☐	130@150MHz	10,5,2	30	1400	0.720	300	185	60	-	-	White
BCCWH-160808-R14☐	140@100MHz	10,5,2	28	1300	0.870	280	190	80	-	-	Blue
BCCWH-160808-R15☐	150@100MHz	10,5,2	32	1300	0.950	280	230	25	-	-	White
BCCWH-160808-R16☐	160@100MHz	10,5,2	25	1300	1.400	280	215	20	-	-	Yellow
BCCWH-160808-R18☐	180@100MHz	10,5,2	25	1250	1.400	250	305	22	-	-	Black
BCCWH-160808-R22☐	220@100MHz	10,5,2	25	1200	1.600	250	377	21	-	-	Brown
BCCWH-160808-R26☐	260@100MHz	10,5,2	25	1000	2.000	200	469	21	-	-	Violet

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Part Number	Inductance (nH)	Percent Tolerance	Q Min	SRF Min MHz	RDC Max Ohms	IDC Max mA	900MHz		1.7GHz		Color code
							L Typ	Q Typ	L Typ	Q Typ	
BCCWH-160808-R27☐	270@100MHz	10,5,2	25	900	2.100	200	523.0	19	-	-	Red
BCCWH-160808-R28☐	280@100MHz	10,5,2	25	1000	2.400	100	524.0	18	-	-	Green
BCCWH-160808-R30☐	300@100MHz	10,5,2	25	750	2.500	150	539.7	21	-	-	Orange
BCCWH-160808-R33☐	330@100MHz	10,5,2	25	900	3.800	100	680.4	20	-	-	Blue
BCCWH-160808-R39☐	390@100MHz	10,5,2	25	900	4.350	100	734.5	29	-	-	Yellow
BCCWH-160808-R47☐	470@100MHz	10,5,2	23	600	3.600	80	-	-	-	-	White

Working Temperature Range：- 40。C ~ 125。C

Tolerance: G=±2%, J=±5%, K=±10%

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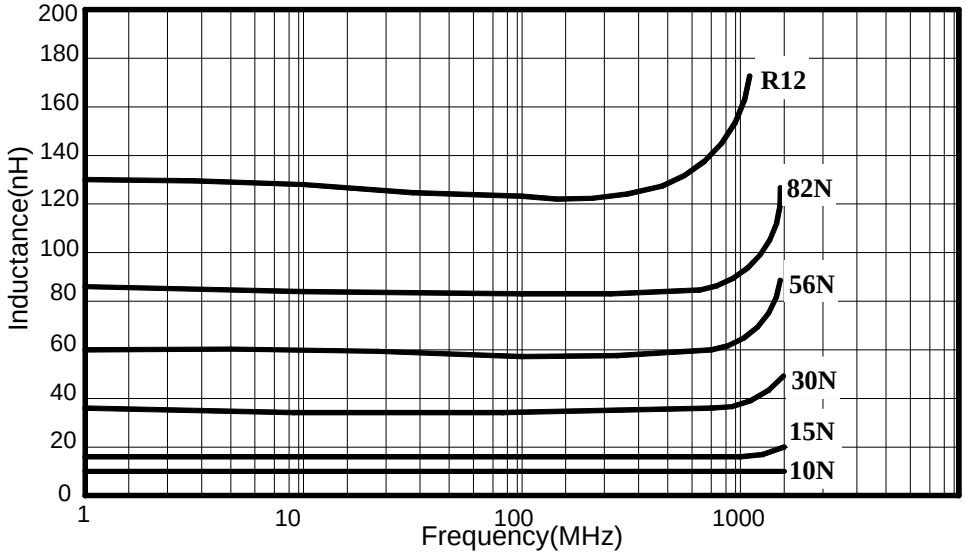
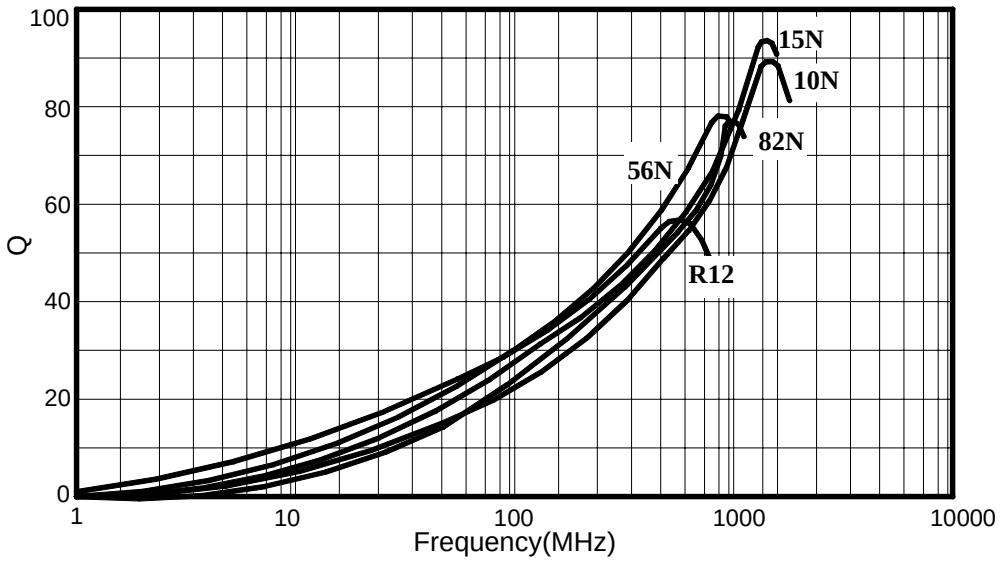
L vs F &Q vs F Curve





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Reliability Test Condition

TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS
*ELECTRICAL PERFORMANCE TEST		
INDUCTANCE	REF.ER TO STANDARD ELECTRICTAL CHARACTERISTIC LIST	HP 4291B
Q		HP 4291B
SRF		HP 8753D
DC RESISTANCE R_{DC}		Micro-Ohmmeter (GOM-801G)
RATED CURRENT IDC		APLIED THE CURRENT TO COILS, THE INDUCTANCE CHANGE SHOULD BE LESS THAN 10% TO INITIAL VALUE
OVER LOAD TEST	AFTER TEST, INDUCTORS SHALL BE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE	APPLIED 2 TIMES OF RATED ALLOWED DC CURRENT TO INDUCTOR FOR A PERIOD OF 5 MINUTE
WITHSTANDING VOITAGE TEST	1.AFTER TEST, INDUCTORS SHALL BE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE	AC VOLTAGE OF 500 VAC APPLIED BERWEEN INDLUICTORS TERMINAL AND CASE FOR 1 MINUTE
INSULATION RESISTANCE TEST	1000 MOHM MIN.	100 VDC APPLIED BETWEEN INDUCTOR TERMINAL AND CASE
*MECHANICAL PERFORMANCE TEST		
VIBARATION TEST (LOW FREQUENCY)	1.INDUCTORS SHOULD HAVE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE 2.INDUCTANCE SHOULD NOT CHANGE MORE THAN±5% 3.Q SHOULD NOT CHANGE MORE THAN±10%	1. AMPLITUDE: 1.5m/m 2. FREQUENCY: 10-55-10 Hz(1min) 3. DIRECTION: X, Y, Z 4. DURATION: 2 HRS/X, Y, Z
RESISTANCE TO SOLDERING TEST		1. PLUMBIC INDUCTOR: INDUCTORS SHOULD BE REF.LOW TO A .P.C BOARD. USING 63Sn/37Pb SOLDER PASTE.SOLDER PROCESS SHOULD BE 230℃ FOR 20±2 SECONDS 2. LEAD-FREE INDUCTOR: INDUCTORS SHOULD BE REF.LOW TO A .P.C BOARD. USING 96.5Sn/3.5Ag SOLDER PASTE.SOLDER PROCESS SHOULD BE 260℃ FOR 5±2 SECONDS.
COMPONENT ADHESIONN (PUSH TEST)	1 lbs. FOR 0402 2 lbs. FOR 0603 4 lbs. FOR THE REST	1. PLUMBIC INDUCTOR: THE DEVICE SHOULD BE REF.LOW SOLDERED (232℃±5℃ FOR 10 SECONDS) TO A TINNED COPPER SUBSTRATE. A DYNOMETER FORCE GAUGE SHOULD BE APPLIED TO THE SIDE OF THE COMPONENT. THE DEVICE MUST WITHSTAND A MINIMUN FORCE OF 2 OR 4 POUNDS WITHOUT A FAILURE OF THE TERMINATION ATTACHED TO COMPONENT 2. LEAD-FREE INDUCTOR: . THE DEVICE SHOULD BE REF.LOW SOLDERED (260℃±5℃ FOR 10 SECONDS) TO A TINNED COPPER SUBSTRATE. A DYNOMETER FORCE GAUGE SHOULD BE APPLIED TO THE SIDE OF THE COMPONENT. THE DEVICE MUST WITHSTAND A MINIMUN FORCE OF 2 OR 4 POUNDS WITHOUT A FAILURE OF THE TERMINATION ATTACHED TO COMPONENT
DROP TEST	AFTER TEST ,THE CHIP INDUCTOR DON'T FELL OR BROKE ON THE P.C BOARD.	DROP 1 TIME FOR EACH FACE AND 1 TIME FOR EACH CORNER.TOTAL DROP 10 TIMES. DROP HEIGHT :100 CM DROP WEIGHT :125 g (1. PLUMBIC INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 63Sn/37Pb 2. LEAD-FREE INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 96.5Sn/3.5Ag)
SOLDERABILITY TEST	THETERMINAL SHOULD AT LEAST BE 90% COVERED WITH SOLDER	1. PLUMBIC INDUCTOR: AFTER FLUXING(ALPHA 100 OR EQUIV), INDUCTOR SHALL BE DIPPED IN A MELTED SOLDER BATH(63Sn/37Pb) AT 232 ±5℃ FOR 5 SECONDS. 2. LEAD-FREE INDUCTOR: AFTER FLUXING(ALPHA 100 OR EQUIV), INDUCTOR SHALL BE DIPPED IN A MELTED SOLDER BATH(SnCuNi) AT 250 ±5℃ FOR 3 SECONDS.
RESISTANCE TO SOLVENT TEST	THERE SHALL BE NO CASE OF DEFORMATION CHANGE IN APPEARANCE OR OBLITERATION OF MARKING.	MIL-STD202F, METHOD 215D

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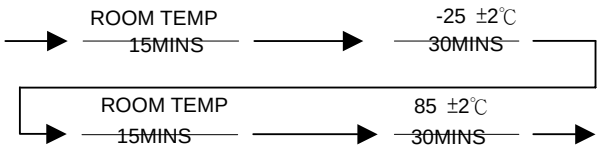
*CLIMATIC TEST		
TEMPERATURE CHARACTERISTIC	1.INDUCTORSSHAL HAVE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE 2..INDUCTANCE SHALL NOT CHANGE MORE THAN ±10% 3. SHALL NOT CHANGE MORE THAN ±20%	-40℃ ~ +125℃
HUMIDITY TEST		1. TEMP： 40 ± 2℃ 2. R.H.： 90 – 95% 3. TIME： 96 ±2 HOURS
LOW TEMPERATURE STORAGE TEST		1. TEMP： -40 ±2℃ 2. TIME： 48 ±2 HOURS 3.INDUCTORS ARE TO BE TESTED AFTER 1HOUR AT ROOM TEMPERATURE.
THERMAL SHOCK TEST		 TOTAL： 5 CYCLES (1. PLUMBIC INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 63Sn/37Pb 2. LEAD-FREE INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 96.5Sn/3.5Ag)
HIGH TEMPERATURE STORAGE TEST		1. TEMP： 125 ± 2℃ 2. TIME： 48 ± 2 HOURS 3.INDUCTORS ARE TO BE TESTED AFTER 1HOUR AT ROOM TEMPERATURE.
HIGH TEMPERATURE LOAD LIFE TEST	THERE SHOULD BE NO EVIDENCE OF SHORT OR OPEN CIRCUIT	1. TEMP： 85 ± 2℃ 2. TIME： 1000 ± 12 HOURS 3. LOAD： ALLOWED DC CURRENT (1.PLUMBIC INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 63Sn/37Pb 2. LEAD-FREE INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 96.5Sn/3.5Ag)
HUMIDITY LOAD LIFE		1. TEMP： 40 ± 2℃ 2. R.H.： 90 – 95% 3. TIME： 1000 ± 12 HOURS 4. LOAD： ALLOWED DC CURRENT (1. PLUMBIC INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 63Sn/37Pb 2. LEAD-FREE INDUCTOR: THE INDUCTOR SHOULD SOLDER INTO P.C BOARD WITH 96.5Sn/3.5Ag)
NOTE： UNLESS OTHERWISE SPECIFIED, ALLOW THE SPECIMEN TO STAND AT ROOM TEMPERATURE FOR 1 HOUR OR MORE BUT NOT MORE THAN 2 HOURS, MEASURE THE ELECTRICAL AND MECHANICAL PERFORMANCES.		

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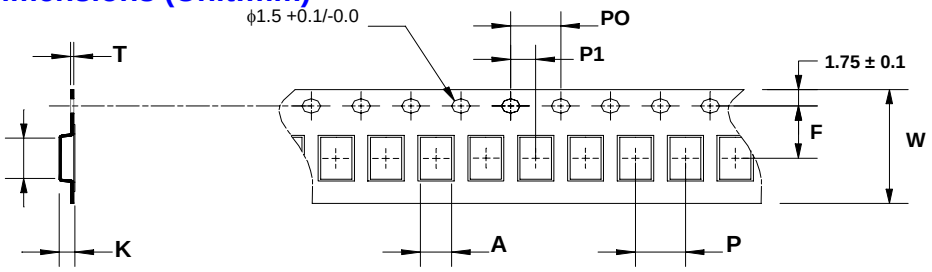
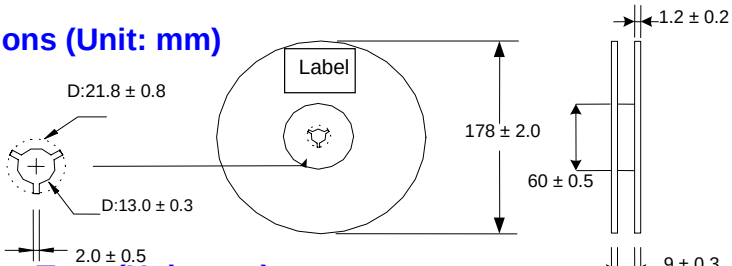
Package Specification.

Tape Dimensions (Unit:mm)

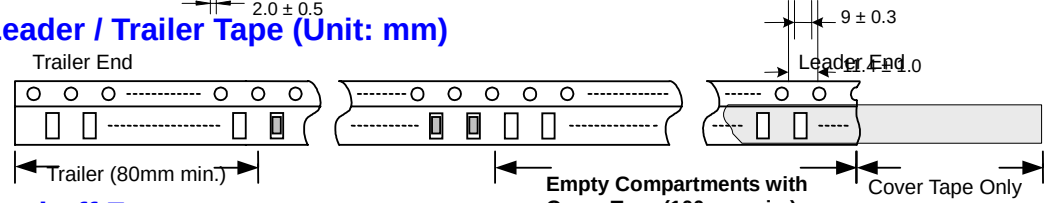


	Tape Dimensions (mm)									Parts (pcs)
	A	B	K	T	F	P	P0	P1	W	7”
160808	1.12	1.85	0.96	0.23	3.5	4	4	2	8	4000

Reel Dimensions (Unit: mm)



Leader / Trailer Tape (Unit: mm)



Peel-off Force

Peel-off force should be in the range of 0.1~0.6N at a peel-off speed of 300±10 mm/min