

POI Series



These miniature chip inductors, POI Series, wound on a special ferrite core and are excellent to be used as choke coil in DC power supply circuits.

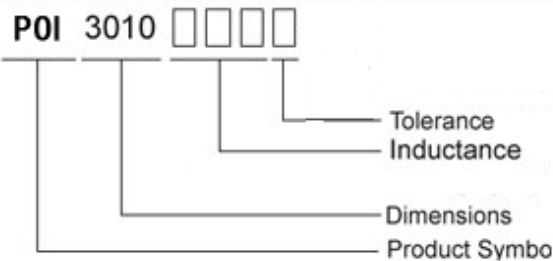
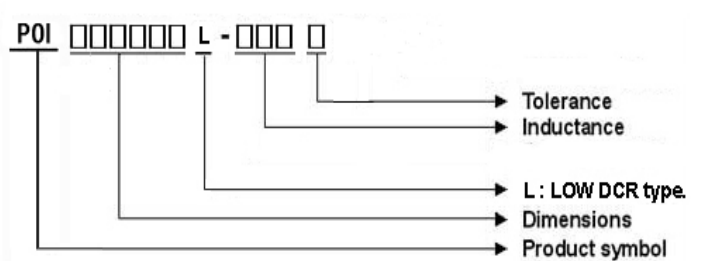
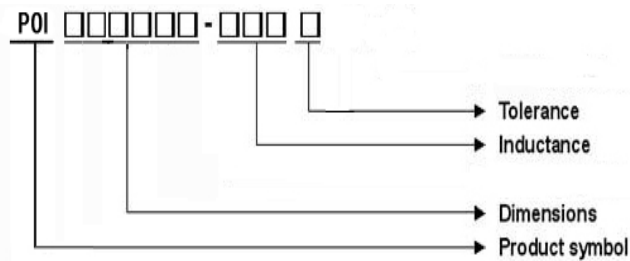
Features

- RoHS compliant
- Low DC resistance, high current capacity, and high impedance characteristics.
- Excellent solder heat resistance. Both flow and reflow soldering methods can be employed.
- Available in 4 sizes.

Applications

- Personal computers.
- Disk Drives and computer peripherals.
- Pagers, Cordless phone.
- DC power supply circuit

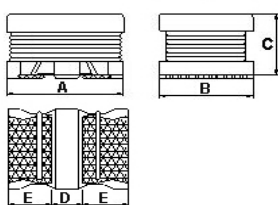
Product Identification



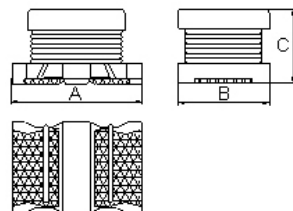
- POI_L: Low DCR Type

Shapes and Dimensions

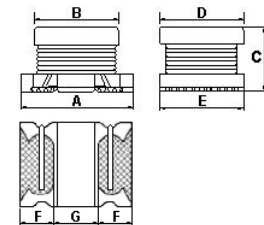
POI201609



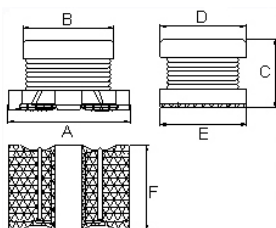
POI321618 & POI322520 & POI322520LT



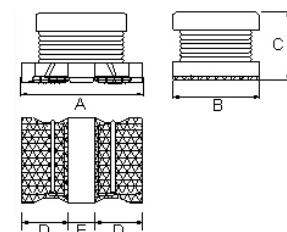
POI322517 & POI322517HP



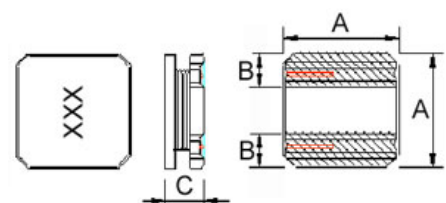
POI453226



POI575047



POI3010

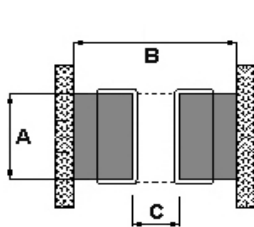


Dimensions in mm

TYPE	A	B	C	D	E	F	G
POI201609	2.0 ± 0.2	1.6 ± 0.2	0.95 ± 0.05	0.8 ± 0.2	0.6 ± 0.2	-	-
POI3010	3.0 ± 0.2	0.875 ± 0.2	1.1 Max				
POI321618	3.2 ± 0.3	1.6 ± 0.2	1.8 ± 0.2	-	-	-	-
POI322517	3.2 ± 0.3	2.5 ± 0.2	1.55 ± 0.15	2.5 ± 0.2	2.5 ± 0.2	0.9 ± 0.3	1.3 ± 0.2
POI322517HP	3.2 ± 0.3	2.5 ± 0.2	1.55 ± 0.15	2.5 ± 0.2	2.5 ± 0.2	0.9 ± 0.3	1.3 ± 0.2
POI322520	3.2 ± 0.3	2.5 ± 0.2	2.0 ± 0.2	-	-	-	-
POI322520L	3.2 ± 0.3	2.5 ± 0.2	2.0 ± 0.2	-	-	-	-
POI453226	4.5 ± 0.3	3.6 ± 0.2	2.6 ± 0.2	3.2 ± 0.2	3.2 ± 0.2	3.2 ± 0.2	-
POI575047	5.7 ± 0.3	5.0 ± 0.3	4.7 ± 0.3	1.3 Min	1.7 Min	-	-

Recommended Pattern

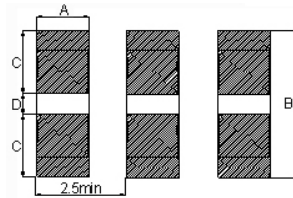
POI201609



Dimensions in mm

A	B	C
1.0	2.6	0.8

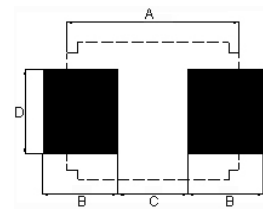
POI321618



Dimensions in mm

A	B	C	D
1.5	4.5	1.75	1.0

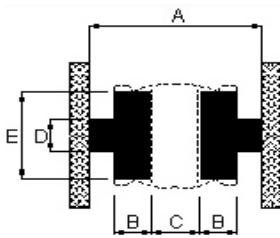
POI575047



Dimensions in mm

A	B	C	D
8.0	3.0	2.0	3.5

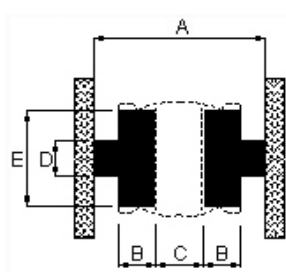
POI322517 & 322517HP



Dimensions in mm

TYPE	A	B	C	D	E
POI322517	5.5	1.0	1.3	1.0	2.0
POI322517HP	5.5	1.0	1.3	1.0	2.0

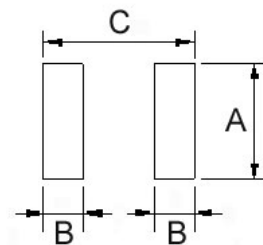
POI322520 & POI322520L & 453226



Dimensions in mm

TYPE	A	B	C	D	E
POI322520	5.5	1.0	1.3	1.0	2.0
POI322520L	5.5	1.0	1.3	1.0	2.0
POI453226	7.5	1.5	1.5	1.5	3.0

POI3010



Dimensions in mm

TYPE	A	B	C
POI3010	2.7	0.8	3.0

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	D.C. Resistance (Ω±30%)	SRF (MHz) Min	Rated current (mA)
POI20160-1R0 <input type="checkbox"/>	1.0	20	1	0.30	100	485
POI201609-1R5 <input type="checkbox"/>	1.5	20	1	0.40	95	445
POI201609-2R2 <input type="checkbox"/>	2.2	20	1	0.48	70	425
POI201609-3R3 <input type="checkbox"/>	3.3	20	1	0.60	65	375
POI201609-4R7 <input type="checkbox"/>	4.7	20	1	0.80	60	300
POI201609-5R6 <input type="checkbox"/>	5.6	20	1	0.90	60	280
POI201609-6R8 <input type="checkbox"/>	6.8	20	1	1.0	55	255
POI201609-8R2 <input type="checkbox"/>	8.2	20	1	1.1	50	235
POI201609-100 <input type="checkbox"/>	10	10 / 20	1	1.2	48	225
POI201609-120 <input type="checkbox"/>	12	10 / 20	1	1.4	44	210
POI201609-150 <input type="checkbox"/>	15	10 / 20	1	1.6	40	200
POI201609-180 <input type="checkbox"/>	18	10 / 20	1	1.8	35	190
POI201609-220 <input type="checkbox"/>	22	10 / 20	1	2.1	30	185
POI201609-270 <input type="checkbox"/>	27	10 / 20	1	2.5	30	180
POI201609-330 <input type="checkbox"/>	33	10 / 20	1	2.8	28	160
POI201609-390 <input type="checkbox"/>	39	10 / 20	1	4.4	24	125
POI201609-470 <input type="checkbox"/>	47	10 / 20	1	5.1	18	120
POI201609-560 <input type="checkbox"/>	56	10 / 20	1	5.7	17	110
POI201609-680 <input type="checkbox"/>	68	10 / 20	1	6.6	14	100
POI201609-820 <input type="checkbox"/>	82	10 / 20	1	7.5	14	90

- When ordering, please specify tolerance and packaging codes.
- Rated Current: Self temperature rise shall be limited to 40°C Max. Inductance drop 30% typ.
- Tolerance : K = ±10% , M = ±20%
- Operating temp: - 4 0 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes.
- Test equipment: L: HP4284A.

SRF: HP4287A

DCR: CH502BC

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (KHz)	RDC (Ω) Max	Rated current (A)Typ	Irms (A)
POI3010T1R0 <input type="checkbox"/>	1.0	30	100	0.072	1.70	1.40
POI3010T1R5 <input type="checkbox"/>	1.5	30	100	0.11	1.30	1.30
POI3010T2R2 <input type="checkbox"/>	2.2	20	100	0.18	1.20	0.95
POI3010T3R3 <input type="checkbox"/>	3.3	20	100	0.22	0.96	0.85
POI3010T4R7 <input type="checkbox"/>	4.7	20	100	0.29	0.77	0.68
POI3010T6R8 <input type="checkbox"/>	6.8	20	100	0.38	0.65	0.63
POI3010T100 <input type="checkbox"/>	10	20	100	0.64	0.56	0.50
POI3010T150 <input type="checkbox"/>	15	20	100	0.88	0.48	0.40
POI3010T220 <input type="checkbox"/>	22	20	100	1.55	0.37	0.32
POI3010T330 <input type="checkbox"/>	33	20	100	1.97	0.32	0.28
POI3010T470 <input type="checkbox"/>	47	20	100	2.73	0.27	0.20

- When ordering, please specify tolerance and packaging codes.
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drops 10% typ.
- Tolerance : M = ±20% , T = ±30%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- I rms: Self temperature rise shall limited to 40°C Max.
- Test equipment: L: HP 4284A
RDC: CHEN HWA 502
IDC: HP4284A+HP42841A

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	D.C. Resistance (Ω) Max	SRF (MHz) Min	Rated current (mA)
POI321618TR12 <input type="checkbox"/>	0.12	20	1	0.112	250	970
POI321618TR22 <input type="checkbox"/>	0.22	20	1	0.140	250	850
POI321618TR47 <input type="checkbox"/>	0.47	20	1	0.210	180	700
POI321618T1R0 <input type="checkbox"/>	1.0	20	1	0.364	100	510
POI321618T2R2 <input type="checkbox"/>	2.2	20	1	0.533	50	430
POI321618T4R7 <input type="checkbox"/>	4.7	20 / 10	1	0.845	31	340
POI321618T100 <input type="checkbox"/>	10	10 / 5	1	1.690	20	230
POI321618T220 <input type="checkbox"/>	22	10 / 5	1	3.900	14	160
POI321618T470 <input type="checkbox"/>	47	10 / 5	1	10.40	10	100
POI321618T101 <input type="checkbox"/>	100	10 / 5	1	15.60	7	80

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ
- Tolerance : J = ±5% , K = ±10% , M = ±20%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4192A. LF Impedance Analyzer
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	D.C. Resistance (Ω±30%)	SRF (MHz) Min	Rated current (mA)
POI322517-2R2 <input type="checkbox"/>	2.2	20	1	0.097	64	790
POI322517-3R3 <input type="checkbox"/>	3.3	20	1	0.12	50	710
POI322517-6R8 <input type="checkbox"/>	6.8	20	1	0.25	32	540
POI322517-100 <input type="checkbox"/>	10	10,20	1	0.30	26	350
POI322517-220 <input type="checkbox"/>	22	10,20	1	0.71	19	250
POI322517-101 <input type="checkbox"/>	100	10,20	1	3.50	10	100

- When ordering, please specify tolerance and packaging codes
- Rated Current: Inductance drop 10% typ
- Tolerance : K = ±10% , M = ±20%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4284A
SRF: HP4287A.
DCR: CH502BC

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	D.C. Resistance (Ω±20%)	SRF (MHz) Min	Rated current (mA)	Irms (mA)
POI322517HP-R47 <input type="checkbox"/>	0.47	30	1	0.030	100	3400	2550
POI322517HP-1R0 <input type="checkbox"/>	1.0	30	1	0.045	100	2300	2050
POI322517HP-1R5 <input type="checkbox"/>	1.5	30	1	0.057	70	1750	1750
POI322517HP-2R2 <input type="checkbox"/>	2.2	30	1	0.076	70	1550	1600
POI322517HP-3R3 <input type="checkbox"/>	3.3	30	1	0.120	50	1250	1200
POI322517HP-4R7 <input type="checkbox"/>	4.7	30	1	0.180	40	1000	1000
POI322517HP-6R8 <input type="checkbox"/>	6.8	30	1	0.240	40	850	850
POI322517HP-100 <input type="checkbox"/>	10	30	1	0.380	30	750	700
POI322517HP-220 <input type="checkbox"/>	22	30	1	0.810	20	500	450

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 40°C Max. Inductance drop 30% typ
- Tolerance : T = ±30%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4284A
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	D.C. Resistance (Ω±30%)	SRF (MHz) Min	Rated current (mA)
POI322520-1R0 <input type="checkbox"/>	1.0	20	1	0.09	96	1000
POI322520-2R2 <input type="checkbox"/>	2.2	20	1	0.13	64	600
POI322520T4R7 <input type="checkbox"/>	4.7	20	1	0.20	43	450
POI322520-100 <input type="checkbox"/>	10	20	1	0.44	26	300
POI322520-220 <input type="checkbox"/>	22	20 / 10	1	0.71	19	250
POI322520-470 <input type="checkbox"/>	47	20 / 10	1	1.30	15	170
POI322520-101 <input type="checkbox"/>	100	20 / 10	1	3.50	10	100
POI322520-221 <input type="checkbox"/>	220	20 / 10	1	8.40	6.8	70
POI322520-331 <input type="checkbox"/>	330	20 / 10	1	10.0	5.6	60
POI322520-391 <input type="checkbox"/>	390	20 / 10	1	17.0	5.0	60
POI322520-471 <input type="checkbox"/>	470	20 / 10	0.001	19.0	5.0	60
POI322520-561 <input type="checkbox"/>	560	20 / 10	0.001	22.0	5.0	60

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ
- Tolerance : K = ±10% , M = ±20%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4192A. LF Impedance Analyzer
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

Electrical Characteristics (LOW DCR Type)

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	D.C. Resistance (Ω±30%)	SRF (MHz) Min	Rated current (mA)
POI322520L-R15 <input type="checkbox"/>	0.15	20	1	0.028	400	1450
POI322520L-R27 <input type="checkbox"/>	0.27	20	1	0.034	250	1250
POI322520L-R47 <input type="checkbox"/>	0.47	20	1	0.042	150	1100
POI322520L-1R0 <input type="checkbox"/>	1.0	20	1	0.060	100	1000
POI322520L-2R2 <input type="checkbox"/>	2.2	20	1	0.097	64	790
POI322520L-4R7 <input type="checkbox"/>	4.7	20	1	0.15	43	650
POI322520L-100 <input type="checkbox"/>	10	20 / 10	1	0.30	26	450

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ
- Tolerance : K = ±10% , M = ±20%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4192A. LF Impedance Analyzer
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	D.C. Resistance (Ω) Max	SRF (MHz) Min	Rated current (mA)
POI453226-1R0 <input type="checkbox"/>	1.0	20	1	0.08	100	1080
POI453226-1R5 <input type="checkbox"/>	1.5	20	1	0.09	85	1000
POI453226-2R2 <input type="checkbox"/>	2.2	20	1	0.11	60	900
POI453226-3R3 <input type="checkbox"/>	3.3	20	1	0.13	47	800
POI453226-4R7 <input type="checkbox"/>	4.7	10 / 20	1	0.15	35	750
POI453226-6R8 <input type="checkbox"/>	6.8	10 / 20	1	0.20	30	720
POI453226-100 <input type="checkbox"/>	10	5 / 10	1	0.24	23	650
POI453226-150 <input type="checkbox"/>	15	5 / 10	1	0.32	20	570
POI453226-220 <input type="checkbox"/>	22	5 / 10	1	0.60	15	420
POI453226-330 <input type="checkbox"/>	33	5 / 10	1	1.0	12	310
POI453226-470 <input type="checkbox"/>	47	5 / 10	1	1.1	10	280
POI453226-680 <input type="checkbox"/>	68	5 / 10	1	1.7	8.4	220
POI453226-101 <input type="checkbox"/>	100	5 / 10	1	2.2	6.8	190
POI453226-151 <input type="checkbox"/>	150	5 / 10	1	3.5	5.5	130
POI453226-221 <input type="checkbox"/>	220	5 / 10	1	4.0	4.5	110
POI453226-331 <input type="checkbox"/>	330	5 / 10	1	6.8	3.6	100
POI453226-471 <input type="checkbox"/>	470	5 / 10	0.001	8.5	3.0	90

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ
- Tolerance : J = ±5% , K = ±10% , M = ±20%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4192A. LF Impedance Analyzer
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

Electrical Characteristics

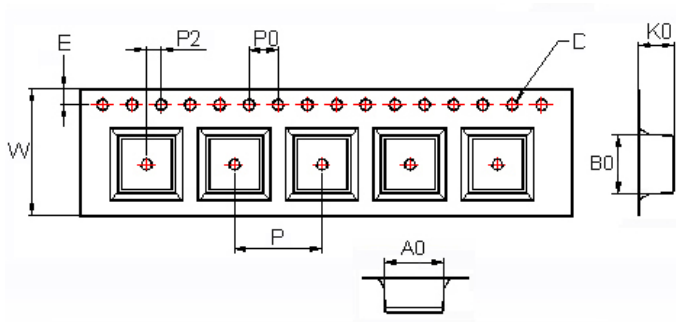
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	D.C. Resistance (Ω) Max	SRF (MHz) Min	Rated current (mA)
POI575047-R12 <input type="checkbox"/>	0.12	20	1	0.0098	450	6000
POI575047-R27 <input type="checkbox"/>	0.27	20	1	0.0140	300	5300
POI575047-R47 <input type="checkbox"/>	0.47	20	1	0.0182	200	4800
POI575047-1R0 <input type="checkbox"/>	1.0	20	1	0.0270	150	4000
POI575047-1R5 <input type="checkbox"/>	1.5	20	1	0.0310	110	3700
POI575047-2R2 <input type="checkbox"/>	2.2	20	1	0.0410	80	3200
POI575047-3R3 <input type="checkbox"/>	3.3	20	1	0.0500	40	2900
POI575047-4R7 <input type="checkbox"/>	4.7	20	1	0.0574	30	2700
POI575047-6R8 <input type="checkbox"/>	6.8	20	1	0.1040	25	2000
POI575047-100 <input type="checkbox"/>	10	10 / 20	1	0.1300	20	1700
POI575047-150 <input type="checkbox"/>	15	10 / 20	1	0.210	17	1400
POI575047-220 <input type="checkbox"/>	22	10 / 20	1	0.266	15	1200
POI575047-330 <input type="checkbox"/>	33	10 / 20	1	0.448	12	900
POI575047-470 <input type="checkbox"/>	47	10 / 20	1	0.560	10	800
POI575047-680 <input type="checkbox"/>	68	10 / 20	1	0.938	7.6	640
POI575047-101 <input type="checkbox"/>	100	10 / 20	0.1	1.204	6.5	560
POI575047-151 <input type="checkbox"/>	150	10 / 20	0.1	2.660	5.0	420
POI575047-221 <input type="checkbox"/>	220	10 / 20	0.1	3.360	4.0	320
POI575047-331 <input type="checkbox"/>	330	10 / 20	0.1	6.160	3.1	270
POI575047-471 <input type="checkbox"/>	470	10 / 20	0.1	7.560	2.4	240
POI575047-681 <input type="checkbox"/>	680	10 / 20	0.1	11.34	1.9	190
POI575047-102 <input type="checkbox"/>	1000	10 / 20	0.01	14.42	1.7	150
POI575047-222 <input type="checkbox"/>	2200	10 / 20	0.01	30.10	1.2	100
POI575047-472 <input type="checkbox"/>	4700	10 / 20	0.01	61.04	0.8	70
POI575047-103 <input type="checkbox"/>	10000	10 / 20	0.01	140.0	0.5	50

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.
- Tolerance : K = ±10% , M = ±20%
- Operating temp : - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat : 260°C 10 seconds after 150°C preheat cycle for 4 minutes.
- Test equipment: L:HP4192. LF Impedance Analyzer
SRF:HP4291A RF Impedance Analyzer
DCR:CH502BC

Packaging Specifications

Tape Dimensions

FIG 1



Tape Material

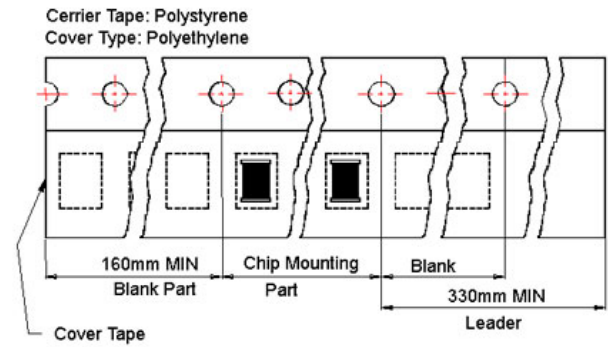
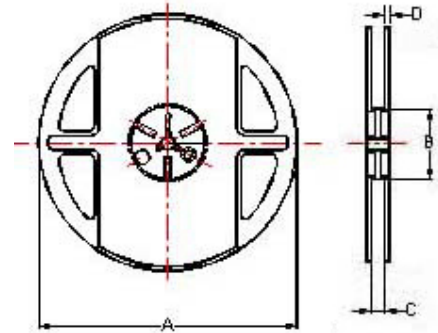
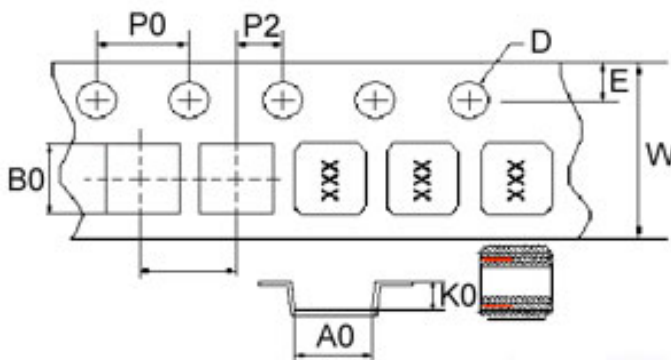


FIG 2

Reel Dimensions



Dimensions in mm

TYPE	FIG	Tape Dimensions									Reel Dimensions				Quantity
		A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS / REEL
SQC201609	1	1.9	2.3	1.1	1.55	1.75	8	4	4	2	178	60	9	1.5	3000
SQC3010	2	3.2	3.2	1.4	1.55	1.75	8	4	4	2	178	60	9	1.5	2000
SQC321618	1	1.85	3.55	2.05	1.5	1.75	8	4	4	2	178	60	9	1.5	2000
SQC322517	1	2.85	3.56	1.80	1.55	1.75	8	4	4	2	178	60	9	1.5	2000
SQC322517HP	1	2.85	3.56	1.80	1.55	1.75	8	4	4	2	178	60	9	1.5	2000
SQC322520	1	2.90	3.60	2.25	1.5	1.75	8	4	4	2	178	60	9	1.5	2000
SQC322520L	1	2.90	3.60	2.25	1.5	1.75	8	4	4	2	178	60	9	1.5	2000
SQC453226	1	3.60	4.90	3.00	1.5	1.75	12	8	4	2	178	60	13.2	1.5	500
SQC575047	1	5.4	6.0	5.5	1.5	1.75	16	12	12	2	330	100	17	1.5	1000