

Multilayer Chip Ferrite Inductor



◆ **Features**

- 1、 Monolithic structure for high reliability
- 2、 Compact size inductor possible
- 3、 No cross coupling due to magnetic shield
- 4、 Perfect shape for mounting with no directionality
- 5、 Excellent solderability and high heat resistance for reflow soldering or wave soldering
- 6、 RoHS Compliant.



◆ **Application**

Widely use in Communications, Video and audio equipment, Computer, Remote control, etc.

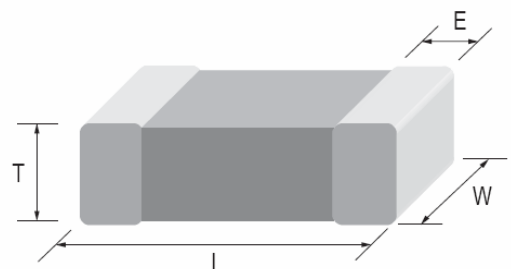
◆ **PRODUCT IDENTIFICATION**

SCL 1608 S 1R0 M S P
(1) (2) (3) (4) (5) (6) (7)

- (1) Series Type
- (2) Chip Size (mm) :Length X Width
- (3) Material Code
- (4) Inductance: 47N=0.047μH; R10=0.10μH
1R0=1.0μH; 100=10μH
- (5) Inductance Tolerance: K=±10%, M=±20%
- (6) Company Code
- (7) Packaging:P–Embossed paper tape, 7" reel
E- Embossed plastic tape, 7" reel

◆ **Dimensions** Unit: mm

Size(EIA)	1005 (0402)	1608 (0603)	2012 (0805)	3216 (1206)
L	1.00±0.10	1.60±0.150	2.00±0.20	3.20±0.20
W	0.50±0.10	0.80±0.150	1.25±0.20	1.60±0.20
T	0.50±0.10	0.80±0.150	0.90±0.20	1.10±0.20
E	0.25±0.10	0.30±0.20	0.50±0.30	0.50±0.30



◆ Specifications

Part Number	Inductance (μH)	Min. Quality Factor (Q)	L, Q Test Freq.L/Q Freq. (MHz)	Min.Self-resonant Frequency S.R.F.(MHz)	Max. DC Resistance DCR(Ω)	Max. Rated Current Ir(mA)
SCL 1005 Series						
SCL 1005L47NKSP	0.047	10	50	220	0.45	25
SCL 1005L68NKSP	0.068	10	50	210	0.45	25
SCL 1005L82NKSP	0.082	10	50	200	0.45	25
SCL 1005LR10KSP	0.1	10	25	200	0.8	25
SCL 1005LR12KSP	0.12	10	25	165	0.8	25
SCL 1005LR15KSP	0.15	10	25	140	0.9	25
SCL 1005LR18KSP	0.18	10	25	120	0.9	25
SCL 1005LR22KSP	0.22	10	25	110	1.2	25
SCL 1005LR27KSP	0.27	15	25	95	1.2	25
SCL 1005LR33KSP	0.33	15	25	85	1.25	18
SCL 1005QR39KSP	0.39	20	10	85	0.6	15
SCL 1005QR47KSP	0.47	20	10	80	0.7	15
SCL 1005QR56KSP	0.56	20	10	75	0.8	15
SCL 1005QR68KSP	0.68	20	10	70	0.9	15
SCL 1005QR82KSP	0.82	20	10	65	0.9	15
SCL 1005P1R0KSP	1	20	10	60	1	15
SCL 1005P1R2KSP	1.2	20	10	55	1.25	15
SCL 1005P1R5KSP	1.5	20	10	50	1.4	15
SCL 1005P1R8KSP	1.8	20	10	45	1.55	15
SCL 1005P2R2KSP	2.2	20	10	40	1.7	10
SCL 1005Q1R0KSP	1	20	10	40	0.9	15
SCL 1005Q1R2KSP	1.2	20	10	35	1.2	15
SCL 1005Q1R5KSP	1.5	20	10	30	1.2	15
SCL 1005Q1R8KSP	1.8	20	10	30	1.45	15
SCL 1005Q2R2KSP	2.2	20	10	28	1.7	10
SCL 1005Q2R7KSP	2.7	20	10	28	2.4	10
SCL 1005Q3R3KSP	3.3	20	10	28	2.7	10
SCL 1608 Series						
SCL 1608L47NKSP	0.047	10	50	260	0.3	50
SCL 1608L68NKSP	0.068	10	50	250	0.3	50
SCL 1608L82NKSP	0.082	10	50	245	0.3	50
SCL 1608LR10KSP	0.1	15	25	240	0.5	50
SCL 1608LR12KSP	0.12	15	25	205	0.5	50
SCL 1608LR15KSP	0.15	15	25	180	0.6	50

◆ Specifications

Part Number	Inductance (μH)	Min. Quality Factor (Q)	L, Q Test Freq.L/Q Freq. (MHz)	Min.Self-resonant Frequency S.R.F(MHz)	Max. DC Resistance DCR(Ω)	Max. Rated Current Ir(mA)
SCL 1608 Series						
SCL 1608LR18KSP	0.18	15	25	165	0.6	50
SCL 1608LR22KSP	0.22	15	25	150	0.8	50
SCL 1608LR27KSP	0.27	15	25	136	0.8	50
SCL 1608LR33KSP	0.33	15	25	125	0.85	35
SCL 1608LR39KSP	0.39	15	25	110	1	35
SCL 1608LR47KSP	0.47	15	25	105	1.35	35
SCL 1608LR56KSP	0.56	15	25	95	1.55	35
SCL 1608LR68KSP	0.68	15	25	90	1.7	35
SCL 1608LR82KSP	0.82	15	25	85	2.1	35
SCL 1608B1R0KSP	1	35	10	90	0.7	25
SCL 1608B1R2KSP	1.2	35	10	85	0.8	25
SCL 1608B1R5KSP	1.5	35	10	80	0.95	25
SCL 1608B1R8KSP	1.8	35	10	75	1.15	25
SCL 1608B2R2KSP	2.2	35	10	70	1.25	25
SCL 1608P1R0KSP	1	35	10	90	0.6	25
SCL 1608P1R1KSP	1.1	35	10	90	0.6	25
SCL 1608P1R2KSP	1.2	35	10	85	0.8	25
SCL 1608P1R5KSP	1.5	35	10	80	0.8	25
SCL 1608P1R8KSP	1.8	35	10	75	0.95	25
SCL 1608P2R2KSP	2.2	35	10	70	1.15	15
SCL 1608Q1R0KSP	1	35	10	75	0.6	25
SCL 1608Q1R1KSP	1.1	35	10	75	0.6	25
SCL 1608Q1R2KSP	1.2	35	10	65	0.8	25
SCL 1608Q1R5KSP	1.5	35	10	60	0.8	25
SCL 1608Q1R8KSP	1.8	35	10	55	0.95	25
SCL 1608Q2R2KSP	2.2	35	10	50	1.15	15
SCL 1608Q2R7KSP	2.7	35	10	45	1.35	15
SCL 1608Q3R3KSP	3.3	35	10	40	1.55	15
SCL 1608Q3R9KSP	3.9	35	10	35	1.7	15
SCL 1608Q4R7KSP	4.7	35	10	33	2.1	15
SCL 1608S5R6KSP	5.6	35	4	22	1.55	5
SCL 1608S6R8KSP	6.8	35	4	20	1.7	5
SCL 1608S8R2KSP	8.2	35	4	18	2.1	5
SCL 1608S100KSP	10	30	2	17	1.85	3
SCL 1608S120KSP	12	30	2	15	2.1	3

◆ Specifications

Part Number	Inductance (μH)	Min. Quality Factor (Q)	L, Q Test Freq.L/Q Freq. (MHz)	Min.Self-resonant Frequency S.R.F(MHz)	Max. DC Resistance DCR(Ω)	Max. Rated Current Ir(mA)
SCL 1608 Series						
SCL 1608T150KSP	15	20	1	14	1.7	1
SCL 1608T180KSP	18	20	1	13	1.85	1
SCL 1608T220KSP	22	20	1	11	2.1	1
SCL 1608T270KSP	27	20	1	10	2.75	1
SCL 1608T330KSP	33	20	1	9	2.95	1
SCL 2012 Series						
SCL 2012L47NKSP	0.047	15	50	320	0.2	300
SCL 2012L68NKSP	0.068	15	50	280	0.2	300
SCL 2012L82NKSP	0.082	15	50	255	0.2	300
SCL 2012LR10KSP	0.1	20	25	235	0.3	250
SCL 2012LR12KSP	0.12	20	25	220	0.3	250
SCL 2012LR15KSP	0.15	20	25	200	0.4	250
SCL 2012LR18KSP	0.18	20	25	185	0.4	250
SCL 2012LR22KSP	0.22	20	25	170	0.5	250
SCL 2012LR27KSP	0.27	20	25	150	0.5	250
SCL 2012LR33KSP	0.33	20	25	145	0.55	250
SCL 2012LR39KSP	0.39	25	25	135	0.65	200
SCL 2012LR47KSP	0.47	25	25	125	0.65	200
SCL 2012LR56KSP	0.56	25	25	115	0.75	150
SCL 2012LR47KSP	0.47	15	50	320	0.2	300
SCL 2012LR68KSP	0.68	25	25	105	0.8	150
SCL 2012LR82KSP	0.82	25	25	100	1	150
SCL 2012P1R0KSP	1	45	10	95	0.4	50
SCL 2012P1R2KSP	1.2	45	10	85	0.5	50
SCL 2012P1R5KSP	1.5	45	10	80	0.5	50
SCL 2012P1R8KSP	1.8	45	10	75	0.6	50
SCL 2012P2R2KSP	2.2	45	10	70	0.65	30
SCL 2012Q1R0KSP	1	45	10	75	0.4	50
SCL 2012Q1R1KSP	1.1	45	10	65	0.5	50
SCL 2012Q1R2KSP	1.2	45	10	65	0.5	50
SCL 2012Q1R5KSP	1.5	45	10	60	0.5	50
SCL 2012Q1R8KSP	1.8	45	10	55	0.6	50
SCL 2012Q2R2KSP	2.2	45	10	50	0.65	30
SCL 2012Q2R4KSP	2.4	45	10	47	0.7	30
SCL 2012Q2R7KSP	2.7	45	10	45	0.75	30

◆ Specifications

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SCL 2012 Series						
SCL 2012Q3R3KSP	3.3	45	10	41	0.8	30
SCL 2012Q3R9KSP	3.9	45	10	38	0.9	30
SCL 2012Q4R7KSP	4.7	45	10	35	1	30
SCL 2012S5R6KSP	5.6	50	4	32	0.9	15
SCL 2012S6R8KSP	6.8	50	4	29	1	15
SCL 2012S8R2KSP	8.2	50	4	26	1.1	15
SCL 2012S100KSP	10	50	2	24	1.15	15
SCL 2012S120KSP	12	50	2	22	1.25	15
SCL 2012T150KSP	15	30	1	19	0.8	5
SCL 2012T180KSP	18	30	1	18	0.9	5
SCL 2012T220KSP	22	30	1	16	1.1	5
SCL 2012T270KSP	27	30	1	14	1.15	5
SCL 2012T330KSP	33	30	0.4	13	1.25	5
SCL 2012T390KSP	39	35	2	8	2.9	4
SCL 2012T470KSP	47	35	2	7.5	3	4
SCL 3216 Series						
SCL 3216L47NKSP	0.047	20	50	320	0.15	300
SCL 3216L68NKSP	0.068	20	50	280	0.25	300
SCL 3216LR10KSP	0.1	20	25	235	0.25	250
SCL 3216LR12KSP	0.12	20	25	220	0.3	250
SCL 3216LR15KSP	0.15	20	25	200	0.3	250
SCL 3216LR18KSP	0.18	20	25	185	0.4	250
SCL 3216LR22KSP	0.22	20	25	170	0.4	250
SCL 3216LR27KSP	0.27	20	25	150	0.5	250
SCL 3216LR33KSP	0.33	20	25	145	0.5	250
SCL 3216LR39KSP	0.39	25	25	135	0.5	200
SCL 3216LR47KSP	0.47	25	25	125	0.6	200
SCL 3216LR56KSP	0.56	25	25	115	0.7	150
SCL 3216LR68KSP	0.68	25	25	105	0.8	150
SCL 3216LR82KSP	0.82	25	25	100	0.9	150
SCL 3216Q1R0KSP	1	45	10	75	0.4	100
SCL 3216Q1R2KSP	1.2	45	10	65	0.5	100
SCL 3216Q1R5KSP	1.5	45	10	60	0.5	50
SCL 3216Q1R8KSP	1.8	45	10	55	0.5	50
SCL 3216Q2R2KSP	2.2	45	10	50	0.6	50

◆ Specifications

Part Number	Inductance (μH)	Min. Quality Factor (Q)	L, Q Test Freq.L/Q Freq. (MHz)	Min.Self-resonant Frequency S.R.F(MHz)	Max. DC Resistance DCR(Ω)	Max. Rated Current Ir(mA)
SCL 3216 Series						
SCL 3216Q2R7KSP	2.7	45	10	45	0.6	50
SCL 3216Q3R3KSP	3.3	45	10	41	0.7	50
SCL 3216Q3R9KSP	3.9	45	10	38	0.8	50
SCL 3216Q4R7KSP	4.7	45	10	35	0.9	50
SCL 3216S5R6KSP	5.6	50	4	32	0.7	25
SCL 3216S6R8KSP	6.8	50	4	29	0.8	25
SCL 3216S8R2KSP	8.2	50	4	26	0.9	25
SCL 3216S100KSP	10	50	2	24	1.0	25
SCL 3216S120KSP	12	50	2	22	1.05	15
SCL 3216T150KSP	15	35	1	19	0.7	5
SCL 3216T180KSP	18	35	1	18	0.7	5
SCL 3216T220KSP	22	35	1	16	0.9	5
SCL 3216T270KSP	27	35	1	14	0.9	5
SCL 3216T330KSP	33	35	0.4	13	1.05	5
SCL 3216T390KSP	39	40	2	11	3.0	5
SCL 3216T470KSP	47	40	2	10	3.4	5

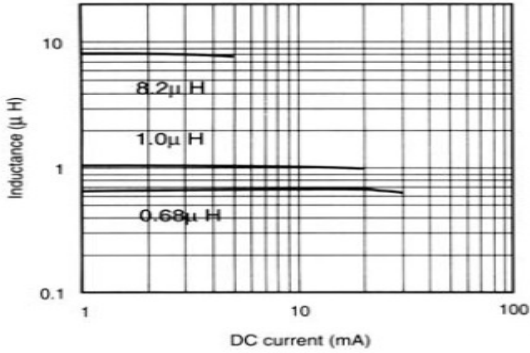
◆ General Technical Data

Operating Temperature Range	-55°C ~ +125°C
Storage Condition	Less than 40°C and 70% RH
Soldering Method	Reflow or Wave Soldering

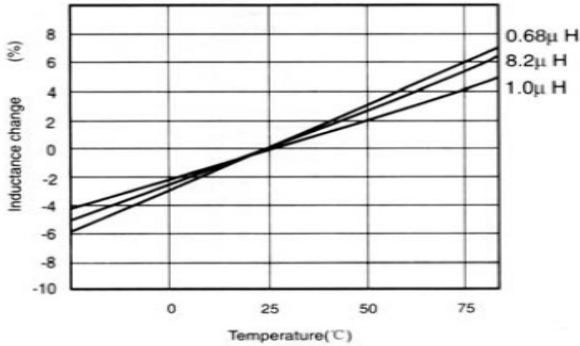
◆ TYPICAL ELECTRICAL CHARACTERISTICS

SCL 1005 Series

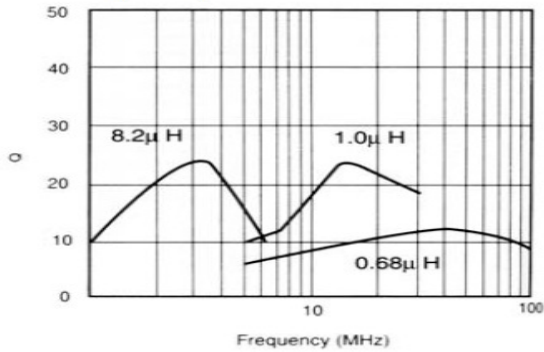
Inductance vs. DC Current Characteristics



Inductance vs. Temperature Characteristics

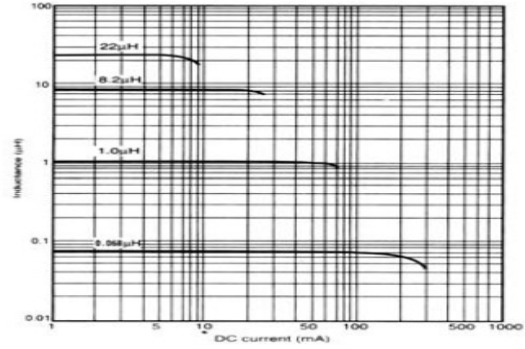


Q vs. Frequency Characteristics

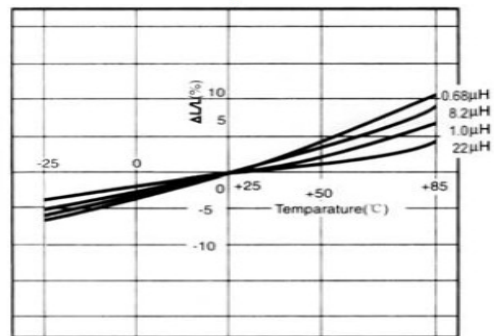


SCL 1608 Series

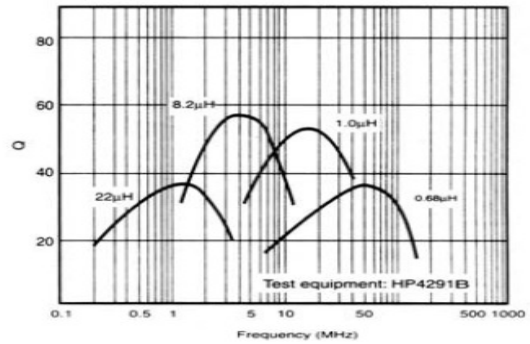
Inductance vs. DC Current Characteristics



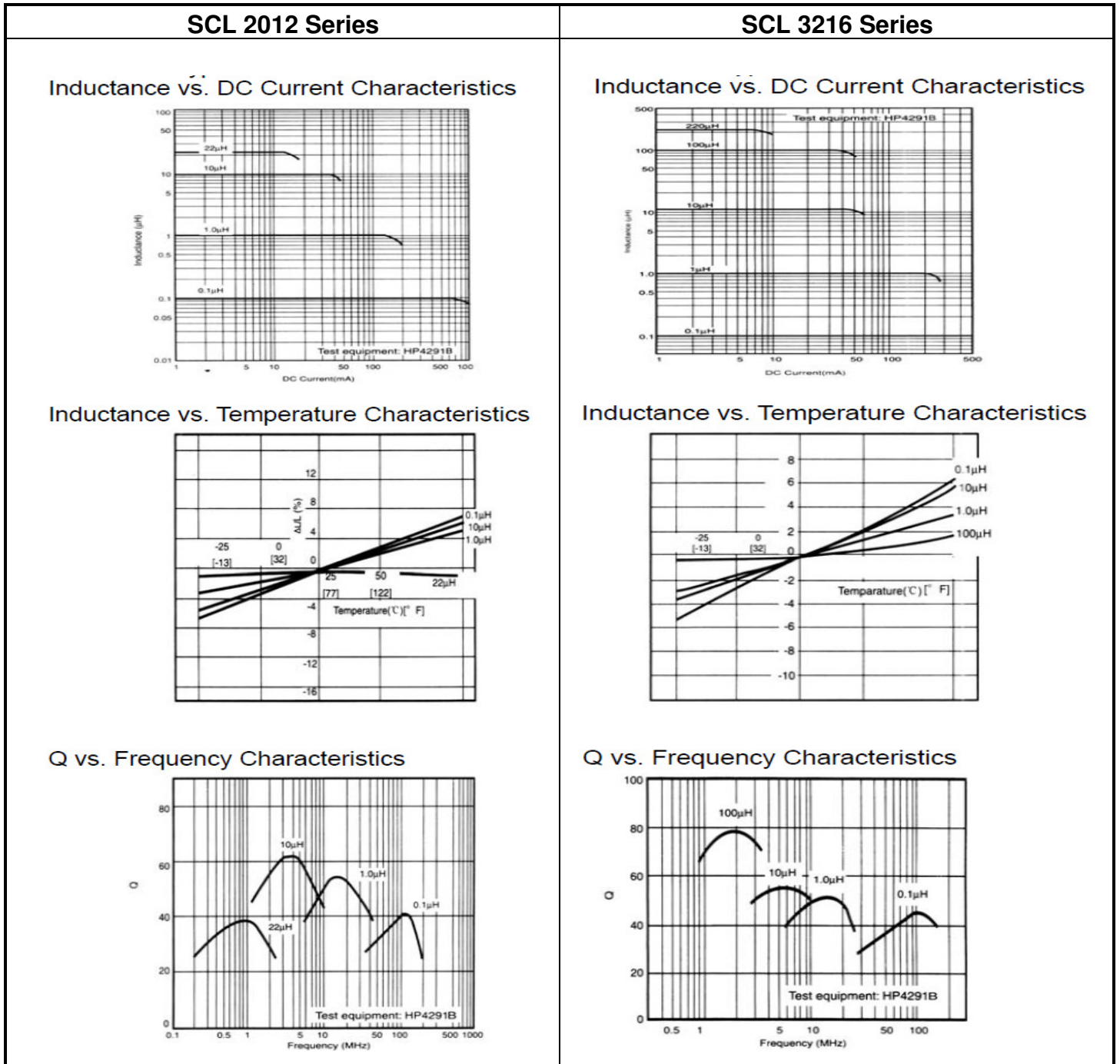
Inductance vs. Temperature Characteristics



Q vs. Frequency Characteristics



◆ TYPICAL ELECTRICAL CHARACTERISTICS



◆ Package

Size EIA (EIA)	1005 (0402)	1608 (0603)	2012 (0805)	3216(1206)
Standard Packing Quantity (pcs / reel)	10,000	4,000	4,000	3,000

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