

## FEATURES

- EIA 0201 & 0402 SIZES
- EXCELLENT HIGH Q AND HIGH SRF CHARACTERISTICS
- REFLOW SOLDERING APPLICABLE
- PACKAGE FOR AUTOMATIC PICK-PLACE

## SPECIFICATIONS

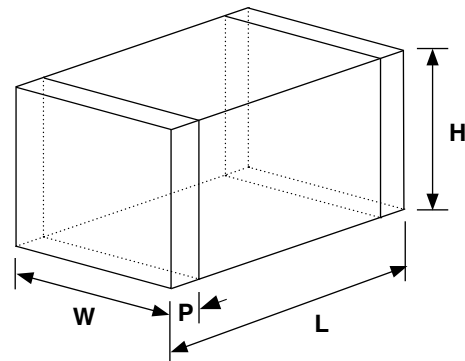
Series	Case size	Inductance Range	Tolerance	Temperature Range
NMLQ02	0201	0.6 ~ 3.9nH	±0.1nH (B), ±0.2nH (C), ±0.3nH (D)	-40°C ~ +105°C
		4.3 ~ 6.2nH	±0.2nH (C), ±0.3nH (D), ±3% (H), ±5% (J)	
		6.8 ~ 22nH	±3% (H), ±5% (J)	
		27 ~ 100nH	±5% (J)	
NMLQ04	0402	1.0 ~ 6.2nH	±0.1nH (B), ±0.2nH (C), ±0.3nH (D)	55°C ~ +125°C
		6.8nH ~ 15nH	±2% (G), ±3% (H), ±5% (J)	

See Specifications Tables for Q Factor, Self Resonant Frequency, DC Resistance and DC Current Ratings

Note: Extended values, tolerances, and enhanced versions are available please contact NIC for more details.

## DIMENSIONS (mm)

Case Size	L	W	H	P
0201	0.60±0.03	0.30±0.03	0.30±0.03	0.10±0.05
0402	1.00±0.15	0.60±0.15	0.50±0.15	0.25±0.10



## PART NUMBER SYSTEM

NML-Q 04 B 2N2 TR E

- Series: NML-Q
- Case Size Code: 04 = 0402
- Tolerance Code: B = ±0.1nH, C = ±0.2nH, D = ±0.3nH, G = ±2%, H = ±3%, J = ±5%
- Inductance Value in nH ("N" denotes decimal point): 2N2
- Packaging: TR = Tape & Reel
- RoHS compliant: E

## NML-Q SERIES 0201 CASE SIZE STANDARD VALUES & SPECIFICATIONS

NIC P/N	'L' Inductance (nH)	Tolerance	'Q' Factor (min.)	L & Q Test Frequency (MHz)	Typical Q (MHz)				SRF MHz (min.)	DC Resistance (ohms) Max.	Rated DC Current (mA) Max.
					500	800	1800	2000			
NMLQ02_0N6TRF	0.6	B, C, D	15	500	30<	40<	75<	80<	10000	0.07	850
NMLQ02_0N7TRF	0.7	B, C, D	15	500	30<	40<	75<	80<	10000	0.07	850
NMLQ02_0N8TRF	0.8	B, C, D	15	500	30<	40<	75<	80<	10000	0.07	850
NMLQ02_0N9TRF	0.9	B, C, D	15	500	30<	40<	75<	80<	10000	0.09	760
NMLQ02_1N0TRF	1.0	B, C, D	15	500	30<	40<	75<	80<	10000	0.12	680
NMLQ02_1N1TRF	1.1	B, C, D	15	500	30<	40<	75<	80<	10000	0.1	750
NMLQ02_1N2TRF	1.2	B, C, D	15	500	30	40	75	80	10000	0.1	750
NMLQ02_1N3TRF	1.3	B, C, D	15	500	30	40	70	74	10000	0.12	650
NMLQ02_1N4TRF	1.4	B, C, D	15	500	30	39	65	68	10000	0.12	650
NMLQ02_1N5TRF	1.5	B, C, D	15	500	30	38	60	63	10000	0.12	650
NMLQ02_1N6TRF	1.6	B, C, D	15	500	26	34	55	57	10000	0.14	610
NMLQ02_1N7TRF	1.7	B, C, D	15	500	25	33	53	55	10000	0.14	610
NMLQ02_1N8TRF	1.8	B, C, D	15	500	25	32	53	55	10000	0.14	610
NMLQ02_1N9TRF	1.9	B, C, D	15	500	25	32	53	55	10000	0.14	610
NMLQ02_2N0TRF	2.0	B, C, D	15	500	25	32	53	55	10000	0.14	610
NMLQ02_2N1TRF	2.1	B, C, D	15	500	25	32	52	54	10000	0.14	610
NMLQ02_2N2TRF	2.2	B, C, D	15	500	25	32	52	54	10000	0.14	610
NMLQ02_2N3TRF	2.3	B, C, D	15	500	25	32	52	54	10000	0.16	560
NMLQ02_2N4TRF	2.4	B, C, D	15	500	25	32	51	53	10000	0.16	560
NMLQ02_2N5TRF	2.5	B, C, D	15	500	24	32	51	53	8500	0.16	560
NMLQ02_2N6TRF	2.6	B, C, D	15	500	24	32	50	52	8500	0.16	560
NMLQ02_2N7TRF	2.7	B, C, D	15	500	23	31	48	49	8500	0.19	510
NMLQ02_2N8TRF	2.8	B, C, D	15	500	23	31	48	50	8500	0.2	500
NMLQ02_2N9TRF	2.9	B, C, D	15	500	23	31	48	49	8500	0.2	500
NMLQ02_3N0TRF	3.0	B, C, D	15	500	22	31	46	47	8500	0.2	500
NMLQ02_3N1TRF	3.1	B, C, D	15	500	22	30	46	48	8500	0.2	500
NMLQ02_3N2TRF	3.2	B, C, D	15	500	22	30	46	48	8500	0.2	500
NMLQ02_3N3TRF	3.3	B, C, D	15	500	22	30	45	46	8000	0.2	500
NMLQ02_3N4TRF	3.4	B, C, D	15	500	22	30	46	47	8000	0.2	500
NMLQ02_3N5TRF	3.5	B, C, D	15	500	22	29	45	46	8000	0.2	500
NMLQ02_3N6TRF	3.6	B, C, D	15	500	22	29	45	46	7000	0.2	500
NMLQ02_3N7TRF	3.7	B, C, D	15	500	22	28	43	44	7000	0.2	500
NMLQ02_3N8TRF	3.8	B, C, D	15	500	22	28	43	44	7000	0.2	500
NMLQ02_3N9TRF	3.9	B, C, D	15	500	22	28	43	43	7000	0.25	440
NMLQ02_4N3TRF	4.3	C, D, H, J	15	500	21	29	43	44	6000	0.3	400
NMLQ02_4N7TRF	4.7	C, D, H, J	15	500	21	29	42	42	6000	0.35	370
NMLQ02_5N1TRF	5.1	C, D, H, J	15	500	21	27	41	41	6000	0.35	370
NMLQ02_5N6TRF	5.6	C, D, H, J	15	500	21	28	40	40	6000	0.35	370
NMLQ02_6N2TRF	6.2	C, D, H, J	15	500	21	27	40	41	6000	0.4	340
NMLQ02_6N8TRF	6.8	H, J	15	500	21	27	39	39	6000	0.5	310
NMLQ02_7N5TRF	7.5	H, J	14	500	20	27	37	37	5000	0.6	300
NMLQ02_8N2TRF	8.2	H, J	14	500	20	27	37	37	5000	0.7	250
NMLQ02_9N1TRF	9.1	H, J	14	500	20	26	36	36	4000	0.7	250
NMLQ02_10NTRF	10	H, J	14	500	20	26	35	35	4000	0.85	220
NMLQ02_12NTRF	12	H, J	14	500	20	26	32	33	3000	0.85	220
NMLQ02_15NTRF	15	H, J	14	500	20	24	30	29	3000	0.9	200
NMLQ02_18NTRF	18	H, J	14	500	19	24	28	26	2500	1.2	180
NMLQ02_22NTRF	22	H, J	14	500	18	23	26	26	2500	1.6	160
NMLQ02_27NTRF	27	J	9	500	13	15	12	-	1700	1.6	160
NMLQ02_33NTRF	33	J	7	300	13	14	-	-	1500	1.6	160

TABLE CONTINUES ON NEXT PAGE



## NML-Q SERIES 0201 CASE SIZE STANDARD VALUES & SPECIFICATIONS

NIC P/N	'L' Inductance (nH)	Tolerance	'Q' Factor (min.)	L & Q Test Frequency (MHz)	Typical Q (MHz)				SRF MHz (min.)	DC Resistance (ohms) Max.	Rated DC Current (mA) Max.
					500	800	1800	2000			
NMLQ02_39NTRF	39	J	7	300	12	13	-	-	1300	2.0	140
NMLQ02_47NTRF	47	J	7	300	12	13	-	-	1200	2.1	140
NMLQ02_56NTRF	56	J	7	300	11	12	-	-	1000	3.0	120
NMLQ02_68NTRF	68	J	7	300	11	12	-	-	1000	3.1	120
NMLQ02_82NTRF	82	J	7	300	11	11	-	-	900	3.5	110
NMLQ02_R10TRF	100	J	6	300	10	8	-	-	800	4.1	100

Tolerance Code: B =  $\pm 0.1nH$ , C =  $\pm 0.2nH$ , D =  $\pm 0.3nH$ , G =  $\pm 2\%$ , H =  $\pm 3\%$ , J =  $\pm 5\%$

Note: Extended values, tolerances, and enhanced versions are available please contact NIC for more details.

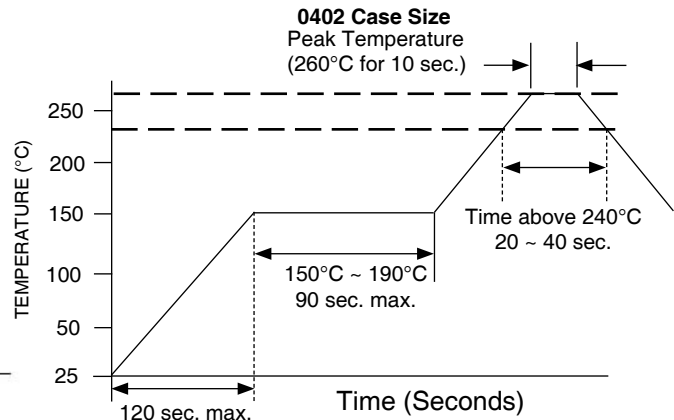
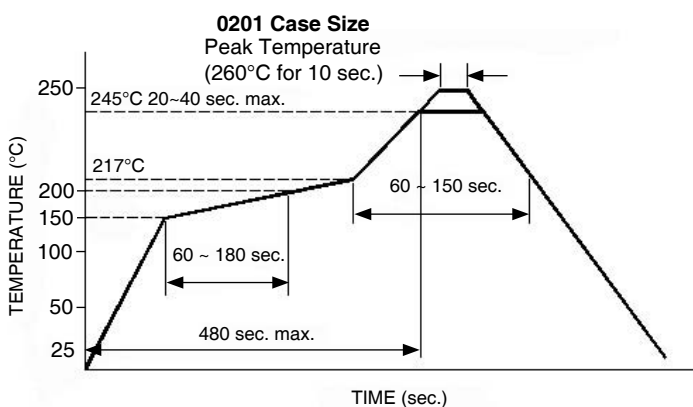
## NML-Q SERIES 0402 CASE SIZE STANDARD VALUES & SPECIFICATIONS

NIC P/N	'L' Inductance (nH)	Tolerance	'Q' Factor (min.)	L & Q Test Frequency (MHz)	Typical Q (MHz)				SRF MHz (min.)	DC Resistance (ohms) Max.	Rated DC Current (mA) Max.
					100	250	900	1800			
NMLQ04_1N0TRF	1.0	B, C, D	20	250	13	22	48	75	6000	0.05	1000
NMLQ04_1N5TRF	1.5	B, C, D	20	250	13	22	58	76	6000	0.05	1000
NMLQ04_1N8TRF	1.8	B, C, D	20	250	13	22	49	78	6000	0.07	800
NMLQ04_2N2TRF	2.2	B, C, D	20	250	14	23	49	82	6000	0.07	800
NMLQ04_2N4TRF	2.4	B, C, D	20	250	14	23	47	78	6000	0.07	800
NMLQ04_2N7TRF	2.7	B, C, D	20	250	14	23	48	82	6000	0.09	700
NMLQ04_3N3TRF	3.3	B, C, D	20	250	14	24	52	90	6000	0.09	700
NMLQ04_3N6TRF	3.6	B, C, D	20	250	15	24	55	95	6000	0.10	700
NMLQ04_3N9TRF	3.9	B, C, D	20	250	15	25	50	89	6000	0.10	700
NMLQ04_4N3TRF	4.3	B, C, D	20	250	15	25	49	86	6000	0.13	600
NMLQ04_4N7TRF	4.7	B, C, D	20	250	15	26	50	88	6000	0.13	600
NMLQ04_5N1TRF	5.1	B, C, D	20	250	15	26	49	84	5500	0.13	600
NMLQ04_5N6TRF	5.6	B, C, D	20	250	15	27	50	84	5500	0.13	600
NMLQ04_6N2TRF	6.2	B, C, D	20	250	15	27	49	80	5500	0.14	550
NMLQ04_6N8TRF	6.8	G, H, J	22	250	15	27	55	89	5000	0.15	550
NMLQ04_7N5TRF	7.5	G, H, J	22	250	15	27	54	90	5000	0.16	550
NMLQ04_8N2TRF	8.2	G, H, J	22	250	15	27	56	84	5000	0.16	550
NMLQ04_9N1TRF	9.1	G, H, J	22	250	15	27	53	79	4500	0.18	500
NMLQ04_10NTRF	10	G, H, J	22	250	16	29	52	75	4500	0.18	500
NMLQ04_11NTRF	11	G, H, J	22	250	16	28	52	71	4000	0.20	500
NMLQ04_12NTRF	12	G, H, J	22	250	16	29	51	68	4000	0.20	500
NMLQ04_13NTRF	13	G, H, J	22	250	16	29	50	62	4000	0.20	480
NMLQ04_15NTRF	15	G, H, J	22	250	16	29	50	60	4000	0.22	430

Tolerance Code: B =  $\pm 0.1nH$ , C =  $\pm 0.2nH$ , D =  $\pm 0.3nH$ , G =  $\pm 2\%$ , H =  $\pm 3\%$ , J =  $\pm 5\%$

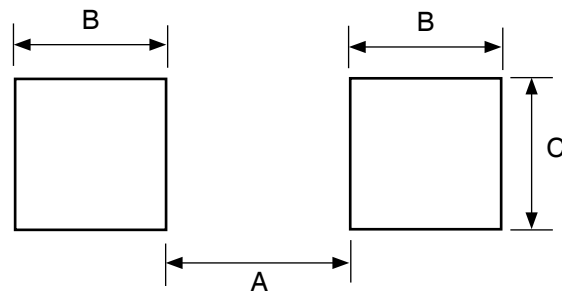
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### RECOMMENDED REFLOW SOLDERING PROFILE



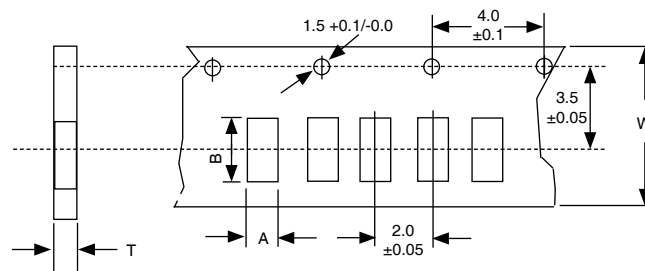
### LAND PATTERN DIMENSIONS (mm)

Case Size	A	B	C
0201	0.20 ~ 0.30	0.25 ~ 0.30	0.25 ~ 0.40
0402	0.45 ~ 0.55	0.40 ~ 0.50	0.55 ~ 0.65



### PUNCHED CARRIER DIMENSIONS (mm)

Case Size	A	B	T	W	QTY/REEL
0201	0.40 nom.	0.70 nom.	0.45 max.	8.0 ± 0.3	15,000
0402	0.72 nom.	1.15 nom.	0.80 max.	8.0 ± 0.3	10,000



### REEL DIMENSIONS (mm):

