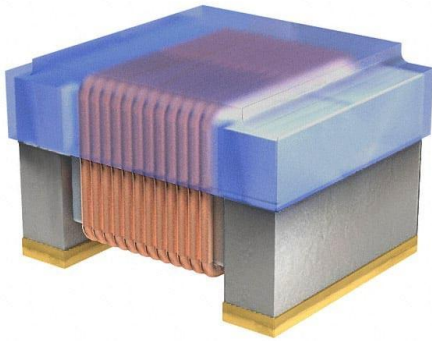


WB0402T33NSJ Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

| | |
|------------------------------|---|
| DiGi Electronics Part Number | WB0402T33NSJ-DG |
| Manufacturer | Cal-Chip Electronics, Inc. |
| Manufacturer Product Number | WB0402T33NSJ |
| Description | WW IND 0402 33NH 5% |
| Detailed Description | 33 nH Unshielded Drum Core, Wirewound Inductor 400 mA 440mOhm Max 0402 (1005 Metric) |



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

WB0402T33NSJ

Series:

WB

Type:

Drum Core, Wirewound

Inductance:

33 nH

Current Rating (Amps):

400 mA

Shielding:

Unshielded

Q @ Freq:

24 @ 250MHz

Ratings:

-

Inductance Frequency - Test:

250 MHz

Mounting Type:

Surface Mount

Supplier Device Package:

0402

Height - Seated (Max):

0.026" (0.66mm)

Manufacturer:

Cal-Chip Electronics, Inc.

Product Status:

Active

Material - Core:

Ceramic

Tolerance:

±5%

Current - Saturation (Isat):

-

DC Resistance (DCR):

440mOhm Max

Frequency - Self Resonant:

2.35GHz

Operating Temperature:

-40°C ~ 125°C

Features:

-

Package / Case:

0402 (1005 Metric)

Size / Dimension:

0.047" L x 0.025" W (1.19mm x 0.64mm)

Environmental & Export classification

RoHS Status:

RoHS Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.8000

Moisture Sensitivity Level (MSL):

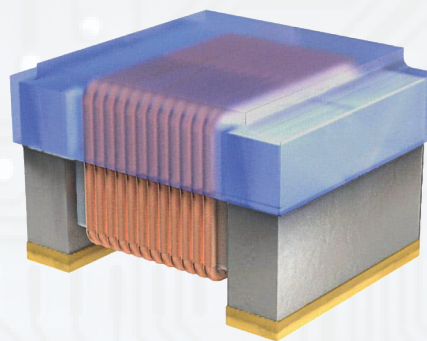
1 (Unlimited)

ECCN:

EAR99

WIRE WOUND CHIP INDUCTOR

- WB SERIES -



FEATURES

- Ceramic base provide high SRF
- Ultra-compact inductors provide high Q factors
- Miniature SMD chip inductor for fully automated assembly
- Outstanding endurance from Pull-up force, mechanical shock and pressure
- Tighter tolerance down to $\pm 2\%$
- Smaller size of 0402 (1005)

APPLICATIONS

RF Products:

- Cellular Phone (CDMA/GSM/PHS)
- Cordless Phone (DECT/CT1CT2)
- Remote Control, Security System
- Smart Phone
- WLL, Wireless LAN / Mouse / Keyboard / Earphone
- VCO, RF Module & Other Wireless Products
- Base Station, Repeater
- GPS Receiver

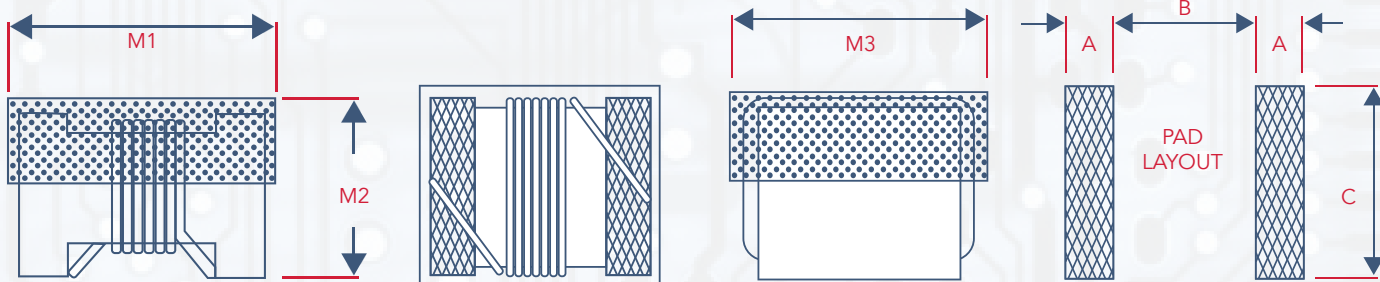
Broad Band Applications:

- CATV Filter, Tuner
- Cable Modem/ XDSL Tuner
- Set Top Box

IT Applications:

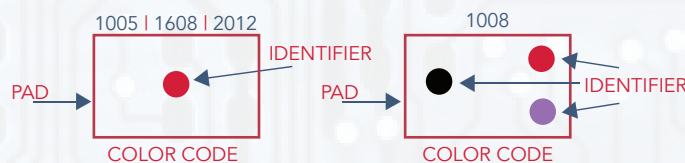
- USB 2.0
- IEEE 1394

MECHANICAL DIMENSION



UNIT=mm

| SIZE (mm) | M1 | M2 | M3 | A | B | C |
|-------------------|---------------|-----------------------|---------------|------|------|------|
| 1005 (EIA0402) | 1.19 (max) | 0.66 (max) | 0.64 (max) | 0.36 | 0.46 | 0.66 |
| 1608 (EIA0603) | 1.80 (max) | 1.02 (max) | 1.12 (max) | 0.64 | 0.64 | 1.02 |
| 2012 (EIA0805) | 2.29 (max) | 1.52 (max) | 1.73 (max) | 1.02 | 0.76 | 1.78 |
| 1008 (EIA2520) | 2 (max) | 5N6~R91 2.02 (max) | 2.79 (max) | 1.27 | 1.27 | 2.54 |
| | | 1R0~150 2.10 (max) | | | | |



- Marking Direction: PAD is on the left and right, the color code is centered.
- Example: WB1008T27NS
- Marking: Red, Black, Violet
- Mark color code in composite electrical specification

PART NUMBERING



| PART NUMBER | INDUCTANCE (nH) @ 250MHz | INDUCTANCE TOLERANCE | Q MIN. | INDUCTANCE | Q | INDUCTANCE | Q | SRF (GHz) MIN. | DCR (Ω) MAX. | IRMS (mA) |
|--------------|-----------------------------|-------------------------|--------|-------------------|--------|--------------------|--------|-------------------|-----------------|--------------|
| | | | | (TYP.) @900MHz | (TYP.) | (TYP.) @1700MHz | (TYP.) | | | |
| WB0402T1N0SJ | 1.0 | J | 16 | 1.02 | 75 | 1.02 | 70 | 12.70 | 0.045 | 1360 |
| WB0402T1N2SJ | 1.2 | J | 16 | 1.17 | 30 | 1.17 | 40 | 12.90 | 0.090 | 740 |
| WB0402T1N8SJ | 1.8 | J | 16 | 2.08 | 59 | 1.94 | 74 | 12.00 | 0.070 | 1040 |
| WB0402T1N9SJ | 1.9 | J | 16 | 1.72 | 65 | 1.74 | 80 | 11.30 | 0.070 | 1040 |
| WB0402T2N0SJ | 2.0 | J | 16 | 1.93 | 54 | 1.93 | 75 | 11.10 | 0.070 | 1040 |
| WB0402T2N2SJ | 2.2 | J | 19 | 2.19 | 55 | 2.23 | 82 | 10.80 | 0.070 | 960 |
| WB0402T2N4SJ | 2.4 | J | 15 | 2.24 | 51 | 2.27 | 70 | 10.50 | 0.068 | 790 |
| WB0402T2N5SJ | 2.5 | J | 15 | 2.37 | 33 | 2.38 | 53 | 10.40 | 0.150 | 660 |
| WB0402T2N7SJ | 2.7 | J | 16 | 2.58 | 42 | 2.60 | 61 | 10.40 | 0.120 | 640 |
| WB0402T3N3SJ | 3.3 | J | 19 | 3.10 | 65 | 3.12 | 80 | 7.00 | 0.066 | 840 |
| WB0402T3N6SJ | 3.6 | J | 19 | 3.56 | 45 | 3.62 | 71 | 6.80 | 0.066 | 840 |
| WB0402T3N9SJ | 3.9 | J | 19 | 3.89 | 50 | 4.14 | 72 | 6.00 | 0.066 | 840 |
| WB0402T4N1SJ | 4.1 | J | 18 | 3.89 | 50 | 4.14 | 72 | 6.00 | 0.066 | 700 |
| WB0402T4N3SJ | 4.3 | J | 18 | 4.19 | 40 | 4.30 | 71 | 6.00 | 0.091 | 700 |
| WB0402T4N7SJ | 4.7 | J | 15 | 4.78 | 47 | 4.59 | 62 | 4.70 | 0.13 | 640 |
| WB0402T5N1SJ | 5.1 | J | 20 | 5.16 | 52 | 5.19 | 76 | 4.80 | 0.083 | 800 |
| WB0402T5N6S | 5.6 | G, J, K | 20 | 5.20 | 48 | 5.28 | 75 | 4.80 | 0.083 | 760 |
| WB0402T5N8S | 5.8 | G, J, K | 20 | 5.60 | 48 | 5.63 | 74 | 4.80 | 0.083 | 760 |
| WB0402T6N2S | 6.2 | G, J, K | 20 | 6.15 | 50 | 6.20 | 73 | 4.80 | 0.083 | 760 |
| WB0402T6N8S | 6.8 | G, J, K | 20 | 6.73 | 65 | 6.95 | 70 | 4.80 | 0.083 | 680 |
| WB0402T7N3S | 7.3 | G, J, K | 20 | 7.51 | 60 | 7.89 | 80 | 4.8 | 0.100 | 680 |
| WB0402T7N5S | 7.5 | G, J, K | 22 | 7.91 | 60 | 8.22 | 85 | 4.80 | 0.100 | 680 |
| WB0402T8N2S | 8.2 | G, J, K | 22 | 8.53 | 64 | 8.81 | 88 | 4.40 | 0.100 | 680 |
| WB0402T8N7S | 8.7 | G, J, K | 18 | 8.78 | 54 | 9.21 | 73 | 4.10 | 0.200 | 480 |
| WB0402T9N0S | 9.0 | G, J, K | 22 | 9.07 | 65 | 9.53 | 83 | 4.16 | 0.100 | 680 |
| WB0402T9N1S | 9.1 | G, J, K | 22 | 9.27 | 63 | 8.61 | 73 | 4.16 | 0.100 | 680 |
| WB0402T9N5S | 9.5 | G, J, K | 18 | 9.64 | 62 | 9.93 | 56 | 4.00 | 0.200 | 480 |
| WB0402T10NS | 10 | G, J, K | 21 | 10.16 | 50 | 9.72 | 85 | 3.90 | 0.200 | 480 |
| WB0402T11NS | 11 | G, J, K | 24 | 10.89 | 53 | 11.46 | 77 | 3.68 | 0.120 | 640 |
| WB0402T12NS | 12 | G, J, K | 24 | 12.71 | 62 | 12.87 | 77 | 3.60 | 0.120 | 640 |
| WB0402T13NS | 13 | G, J, K | 24 | 13.4 | 51 | 14.63 | 57 | 3.45 | 0.210 | 440 |
| WB0402T15NS | 15 | G, J, K | 24 | 15.2 | 55 | 16.88 | 76 | 3.28 | 0.170 | 560 |
| WB0402T16NS | 16 | G, J, K | 24 | 16.43 | 45 | 18.79 | 49 | 3.10 | 0.220 | 560 |
| WB0402T18NS | 18 | G, J, K | 25 | 17.39 | 52 | 22.18 | 64 | 3.10 | 0.230 | 420 |
| WB0402T19NS | 19 | G, J, K | 24 | 19.51 | 60 | 21.85 | 72 | 3.04 | 0.200 | 400 |
| WB0402T20NS | 20 | G, J, K | 25 | 20.7 | 52 | 23.66 | 53 | 3.00 | 0.300 | 400 |
| WB0402T22NS | 22 | G, J, K | 25 | 22.33 | 57 | 26.54 | 53 | 2.80 | 0.300 | 400 |
| WB0402T23NS | 23 | G, J, K | 22 | 23.8 | 49 | 26.85 | 64 | 2.72 | 0.300 | 400 |
| WB0402T24NS | 24 | G, J, K | 25 | 25.59 | 59 | 31.06 | 56 | 2.70 | 0.300 | 400 |
| WB0402T27NS | 27 | G, J, K | 24 | 29.26 | 45 | 32.65 | 62 | 2.48 | 0.300 | 400 |
| WB0402T30NS | 30 | G, J, K | 25 | 31.9 | 45 | 40.38 | 41 | 2.35 | 0.300 | 400 |
| WB0402T33NS | 33 | G, J, K | 24 | 34.12 | 35 | 40.32 | 36 | 2.35 | 0.440 | 400 |
| WB0402T36NS | 36 | G, J, K | 24 | 39.5 | 45 | 48.4 | 53 | 2.32 | 0.440 | 320 |
| WB0402T39NS | 39 | G, J, K | 25 | 42.65 | 45 | 50.96 | 42 | 2.0 | 0.550 | 200 |
| WB0402T40NS | 40 | G, J, K | 24 | 39.0 | 44 | 47.41 | 35 | 2.24 | 0.440 | 320 |
| WB0402T43NS | 43 | G, J, K | 25 | 45.8 | 46 | 61.55 | 35 | 2.03 | 0.810 | 100 |
| WB0402T47NS | 47 | G, J, K | 20 | 52.85 | 42 | - | - | 2.10 | 0.830 | 150 |
| WB0402T51NS | 51 | G, J, K | 25 | 56.6 | 40 | - | - | 1.75 | 0.820 | 100 |
| WB0402T56NS | 56 | G, J, K | 22 | 58.59 | 40 | - | - | 1.76 | 0.970 | 100 |
| WB0402T57NS | 57 | G, J, K | 22 | 60.15 | 40 | - | - | 1.76 | 0.970 | 100 |
| WB0402T62NS | 62 | G, J, K | 22 | 64.95 | 40 | - | - | 1.76 | 1.620 | 100 |
| WB0402T68NS | 68 | G, J, K | 22 | 72.17 | 40 | - | - | 1.62 | 1.120 | 100 |
| WB0402T72NS | 72 | G, J, K | 20 | - | - | - | - | 1.26 | 2.000 | 30 |
| WB0402T75NS | 75 | G, J, K | 20 | - | - | - | - | 1.62 | 2.000 | 50 |
| WB0402T82NS | 82 | G, J, K | 20 | - | - | - | - | 1.26 | 1.550 | 50 |
| WB0402T91NS | 91 | G, J, K | 22 | - | - | - | - | 1.26 | 2.000 | 50 |
| WB0402TR10S | 100 | G, J, K | 20 | - | - | - | - | 1.16 | 2.000 | 30 |
| WB0402TR12S | 120 | G, J, K | 20 | - | - | - | - | 1.90 | 2.200 | 50 |



| PART NUMBER | INDUCTANCE (nH) | INDUCTANCE TOLERANCE | Q MIN. | TEST FREQUENCY (MHz) | SRF (MHz) MIN. | DCR (Ω) MAX. | IRMS (mA) | COLOR CODE |
|-------------|-----------------|----------------------|--------|----------------------|----------------|-----------------------|-----------|------------|
| WB0603T1N6S | 1.6 | K, J | 24 | 250 | 12500 | 0.030 | 700 | BLACK |
| WB0603T1N8S | 1.8 | K, J | 16 | 250 | 12500 | 0.045 | 700 | BROWN |
| WB0603T2N1S | 2.1 | K, J | 20 | 250 | 5800 | 0.050 | 700 | RED |
| WB0603T2N2S | 2.2 | K, J | 20 | 250 | 5800 | 0.100 | 700 | ORANGE |
| WB0603T3N3S | 3.3 | K, J | 20 | 250 | 5500 | 0.070 | 700 | VIOLET |
| WB0603T3N6S | 3.6 | K, J | 22 | 250 | 5900 | 0.063 | 700 | RED |
| WB0603T3N9S | 3.9 | K, J | 22 | 250 | 6900 | 0.080 | 700 | ORANGE |
| WB0603T4N3S | 4.3 | K, J | 22 | 250 | 5900 | 0.063 | 700 | YELLOW |
| WB0603T4N7S | 4.7 | K, J | 20 | 250 | 5800 | 0.116 | 700 | GREEN |
| WB0603T5N1S | 5.1 | K, J | 20 | 250 | 5700 | 0.140 | 700 | BLUE |
| WB0603T5N6S | 5.6 | K, J | 15 | 250 | 5800 | 0.150 | 700 | GRAY |
| WB0603T6N1S | 6.1 | K, J | 25 | 250 | 5800 | 0.110 | 700 | WHITE |
| WB0603T6N3S | 6.3 | J, G | 25 | 250 | 5800 | 0.110 | 700 | GRAY |
| WB0603T6N8S | 6.8 | K, J, G | 27 | 250 | 5800 | 0.110 | 700 | VIOLET |
| WB0603T7N2S | 7.2 | K, J, G | 28 | 250 | 4800 | 0.106 | 700 | BLACK |
| WB0603T7N5S | 7.5 | K, J, G | 28 | 250 | 4800 | 0.106 | 700 | GRAY |
| WB0603T8N2S | 8.2 | K, J, G | 25 | 250 | 5800 | 0.120 | 700 | BLACK |
| WB0603T8N4S | 8.4 | K, J, G | 28 | 250 | 4600 | 0.109 | 700 | RED |
| WB0603T8N5S | 8.5 | K, J, G | 28 | 250 | 4600 | 0.109 | 700 | RED |
| WB0603T8N7S | 8.7 | J, G | 28 | 250 | 4600 | 0.109 | 700 | WHITE |
| WB0603T9N5S | 9.5 | J, G | 28 | 250 | 5400 | 0.135 | 700 | BLACK |
| WB0603T10NS | 10 | J, G | 31 | 250 | 4800 | 0.130 | 700 | BROWN |
| WB0603T11NS | 11 | J, G | 33 | 250 | 4000 | 0.086 | 700 | RED |
| WB0603T12NS | 12 | J, G | 35 | 250 | 4000 | 0.130 | 700 | ORANGE |
| WB0603T13NS | 13 | J, G | 35 | 250 | 4000 | 0.15 | 700 | YELLOW |
| WB0603T14NS | 14 | J, G | 35 | 250 | 4000 | 0.170 | 700 | BROWN |
| WB0603T15NS | 15 | J, G | 35 | 250 | 4000 | 0.170 | 700 | YELLOW |
| WB0603T16NS | 16 | J, G | 34 | 250 | 3300 | 0.104 | 700 | GREEN |
| WB0603T18NS | 18 | J, G | 35 | 250 | 3100 | 0.170 | 700 | BLUE |
| WB0603T20NS | 20 | J, G | 40 | 250 | 3000 | 0.190 | 700 | GREEN |
| WB0603T22NS | 22 | J, G | 38 | 250 | 3000 | 0.190 | 700 | VOLET |
| WB0603T24NS | 24 | J, G | 37 | 250 | 2650 | 0.135 | 700 | GRAY |
| WB0603T27NS | 27 | J, G | 40 | 250 | 2800 | 0.220 | 600 | WHITE |
| WB0603T30NS | 30 | J, G | 37 | 250 | 2250 | 0.220 | 600 | BLACK |
| WB0603T33NS | 33 | J, G | 40 | 250 | 2300 | 0.220 | 600 | BROWN |
| WB0603T36NS | 36 | J, G | 38 | 250 | 2080 | 0.250 | 600 | RED |
| WB0603T39NS | 39 | J, G | 40 | 250 | 2200 | 0.250 | 600 | ORANGE |
| WB0603T43NS | 43 | J, G | 39 | 250 | 2000 | 0.280 | 600 | YELLOW |
| WB0603T47NS | 47 | J, G | 38 | 200 | 2000 | 0.280 | 600 | GREEN |
| WB0603T51NS | 51 | J, G | 35 | 200 | 1900 | 0.270 | 600 | BROWN |
| WB0603T56NS | 56 | J, G | 38 | 200 | 1900 | 0.310 | 600 | BLUE |
| WB0603T62NS | 62 | J, G | 37 | 200 | 1800 | 0.340 | 600 | GRAY |
| WB0603T68NS | 68 | J, G | 37 | 200 | 1700 | 0.340 | 600 | VOLET |
| WB0603T72NS | 72 | J, G | 34 | 150 | 1700 | 0.490 | 400 | GRAY |
| WB0603T75NS | 75 | J, G | 34 | 150 | 1700 | 0.52 | 400 | BLUE |
| WB0603T82NS | 82 | J, G | 34 | 150 | 1700 | 0.540 | 400 | WHITE |
| WB0603T91NS | 91 | J, G | 30 | 150 | 1700 | 0.500 | 400 | BLUE |
| WB0603TR10S | 100 | J, G | 34 | 150 | 1400 | 0.580 | 400 | BLACK |
| WB0603TR11S | 110 | J, G | 32 | 150 | 1350 | 0.610 | 300 | BROWN |
| WB0603TR12S | 120 | J, G | 32 | 150 | 1300 | 0.650 | 300 | RED |
| WB0603TR13S | 130 | J, G | 30 | 150 | 1400 | 0.720 | 300 | WHITE |
| WB0603TR15S | 150 | J, G | 28 | 150 | 990 | 0.920 | 280 | ORANGE |
| WB0603TR16S | 160 | J, G | 25 | 100 | 1300 | 1.400 | 280 | BROWN |
| WB0603TR18S | 180 | J, G | 25 | 100 | 990 | 1.250 | 240 | YELLOW |
| WB0603TR20S | 200 | J, G | 25 | 100 | 990 | 1.980 | 200 | RED |
| WB0603TR22S | 220 | J, G | 25 | 100 | 900 | 1.900 | 200 | GREEN |
| WB0603TR26S | 260 | J, G | 25 | 100 | 1000 | 2.000 | 200 | VIOLET |
| WB0603TR27S | 270 | J, G | 24 | 100 | 900 | 2.300 | 170 | BLUE |
| WB0603TR33S | 330 | J, G | 24 | 100 | 900 | 3.90 | 185 | VIOLET |
| WB0603TR339 | 390 | J, G | 25 | 100 | 900 | 4.35 | 100 | GRAY |
| WB0603TR43S | 430 | J, G | 25 | 100 | 800 | 4.50 | 100 | GREEN |
| WB0603TR47S | 470 | J, G | 25 | 100 | 600 | 3.600 | 80 | WHITE |

| PART NUMBER | INDUCTANCE (nH) | TEST FREQUENCY (MHz) | INDUCTANCE TOLERANCE | Q MIN. | TEST FREQUENCY (MHz) | SRF (MHz) MIN. | DCR (Ω) MAX. | IRMS (mA) | COLOR CODE |
|-------------|-----------------|----------------------|----------------------|--------|----------------------|----------------|--------------|-----------|------------|
| WB0805T2N2S | 2.2 | 250 | K, J | 35 | 1500 | 3000 | 0.08 | 600 | WHITE |
| WB0805T2N7S | 2.7 | 250 | K, J | 80 | 1500 | 7900 | 0.03 | 600 | BROWN |
| WB0805T2N8S | 2.8 | 250 | K, J | 80 | 1500 | 7900 | 0.06 | 800 | RED |
| WB0805T2N9S | 2.9 | 250 | K, J | 50 | 1000 | 4700 | 0.05 | 600 | BLUE |
| WB0805T3N0S | 3.0 | 250 | K, J | 65 | 1500 | 7900 | 0.06 | 800 | VIOLET |
| WB0805T3N3S | 3.3 | 250 | K, J | 35 | 1500 | 7900 | 0.08 | 600 | BLACK |
| WB0805T5N6S | 5.6 | 250 | K, J | 65 | 1000 | 5500 | 0.08 | 600 | VIOLET |
| WB0805T6N8S | 6.8 | 250 | K, J | 50 | 1000 | 5500 | 0.11 | 600 | BROWN |
| WB0805T7N2S | 7.5 | 250 | K, J | 50 | 1000 | 4500 | 0.10 | 600 | BLACK |
| WB0805T8N2S | 8.2 | 250 | K, J, G | 50 | 1000 | 4700 | 0.12 | 600 | RED |
| WB0805T8N7S | 8.7 | 250 | K, J, G | 50 | 1000 | 4700 | 0.10 | 400 | WHITE |
| WB0805T10NS | 10 | 250 | K, J, G | 60 | 500 | 4200 | 0.10 | 600 | RED |
| WB0805T12NS | 12 | 250 | K, J, G | 50 | 500 | 4000 | 0.15 | 600 | ORANGE |
| WB0805T15NS | 15 | 250 | K, J, G | 50 | 500 | 3400 | 0.17 | 600 | YELLOW |
| WB0805T18NS | 18 | 250 | K, J, G | 50 | 500 | 3300 | 0.20 | 600 | GREEN |
| WB0805T22NS | 22 | 250 | K, J, G | 55 | 500 | 2600 | 0.22 | 500 | BLUE |
| WB0805T24NS | 24 | 250 | K, J, G | 50 | 500 | 2000 | 0.22 | 500 | RED |
| WB0805T27NS | 27 | 250 | K, J, G | 55 | 500 | 2500 | 0.25 | 500 | VIOLET |
| WB0805T33NS | 33 | 250 | K, J, G | 60 | 500 | 2050 | 0.27 | 500 | GRAY |
| WB0805T36NS | 36 | 250 | K, J, G | 55 | 500 | 1700 | 0.27 | 500 | YELLOW |
| WB0805T39NS | 39 | 250 | K, J, G | 60 | 500 | 2000 | 0.29 | 500 | BLACK |
| WB0805T43NS | 43 | 200 | K, J, G | 60 | 500 | 1650 | 0.34 | 500 | BROWN |
| WB0805T47NS | 47 | 200 | K, J, G | 60 | 500 | 1650 | 0.31 | 500 | RED |
| WB0805T56NS | 56 | 200 | K, J, G | 60 | 500 | 1550 | 0.34 | 500 | ORANGE |
| WB0805T68NS | 68 | 200 | K, J, G | 60 | 500 | 1450 | 0.38 | 500 | BLUE |
| WB0805T82NS | 82 | 150 | K, J, G | 65 | 500 | 1300 | 0.42 | 400 | YELLOW |
| WB0805T91NS | 91 | 150 | K, J, G | 65 | 500 | 1200 | 0.48 | 400 | VIOLET |
| WB0805TR10S | 100 | 150 | K, J, G | 65 | 500 | 1200 | 0.46 | 400 | GREEN |
| WB0805TR11S | 110 | 150 | K, J, G | 50 | 500 | 1000 | 0.48 | 400 | BLUE |
| WB0805TR12S | 120 | 150 | K, J, G | 50 | 500 | 1100 | 0.51 | 400 | YELLOW |
| WB0805TR15S | 150 | 100 | K, J, G | 50 | 250 | 920 | 0.56 | 400 | BLUE |
| WB0805TR16S | 160 | 100 | K, J, G | 50 | 250 | 900 | 0.60 | 400 | YELLOW |
| WB0805TR18S | 180 | 100 | K, J, G | 50 | 250 | 870 | 0.64 | 400 | VIOLET |
| WB0805TR20S | 200 | 100 | K, J, G | 50 | 250 | 860 | 0.68 | 400 | RED |
| WB0805TR22S | 220 | 100 | K, J, G | 50 | 250 | 850 | 0.70 | 400 | GRAY |
| WB0805TR24S | 240 | 100 | K, J, G | 44 | 250 | 690 | 1.00 | 350 | BLACK |
| WB0805TR25S | 250 | 100 | K, J, G | 50 | 250 | 680 | 1.00 | 350 | YELLOW |
| WB0805TR27S | 270 | 100 | K, J, G | 48 | 250 | 650 | 1.15 | 350 | WHITE |
| WB0805TR30S | 300 | 100 | K, J, G | 48 | 250 | 620 | 1.20 | 300 | GRAY |
| WB0805TR33S | 330 | 100 | K, J, G | 48 | 250 | 600 | 1.40 | 300 | BLACK |
| WB0805TR36S | 360 | 100 | K, J, G | 35 | 250 | 400 | 0.90 | 300 | ORANGE |
| WB0805TR39S | 390 | 100 | K, J, G | 48 | 250 | 560 | 1.50 | 300 | BROWN |
| WB0805TR43S | 430 | 100 | K, J, G | 33 | 100 | 430 | 1.70 | 190 | WHITE |
| WB0805TR47S | 470 | 50 | K, J, G | 33 | 100 | 375 | 1.70 | 250 | VIOLET |
| WB0805TR56S | 560 | 25 | K, J, G | 23 | 50 | 340 | 1.90 | 230 | ORANGE |
| WB0805TR62S | 620 | 25 | K, J, G | 23 | 50 | 200 | 2.00 | 190 | ORANGE |
| WB0805TR68S | 680 | 25 | K, J, G | 23 | 50 | 188 | 2.20 | 190 | GREEN |
| WB0805TR82S | 820 | 25 | K, J, G | 23 | 50 | 215 | 2.50 | 190 | BROWN |
| WB0805TR91S | 910 | 25 | K, J, G | 24 | 50 | 250 | 2.30 | 170 | RED |
| WB0805T1R0S | 1000 | 25 | K, J, G | 23 | 50 | 100 | 2.7 | 170 | BLACK |
| WB0805T1R2S | 1200 | 7.9 | K, J, G | 18 | 25 | 100 | 2.50 | 170 | RED |
| WB0805T2R2S | 2200 | 7.9 | K, J, G | 26 | 7.9 | 60 | 2.70 | 160 | RED |



| PART NUMBER | INDUCTANCE (nH) | TEST FREQUENCY (MHz) | INDUCTANCE TOLERANCE | Q MIN. | TEST FREQUENCY (MHz) | SRF (MHz) MIN. | DCR (Ω) MAX. | IRMS (mA) | COLOR CODE | | |
|-------------|-----------------|----------------------|----------------------|--------|----------------------|----------------|--------------|-----------|-----------------|-----------------|------------|
| | | | | | | | | | 1 ST | 2 ND | MULTIPLIER |
| WB1008T5N6S | 5.6 | 50 | K, J | 50 | 1500 | 4000 | 0.15 | 1000 | GREEN | BLUE | WHITE |
| WB1008T8N2S | 8.2 | 50 | J | 50 | 500 | 4100 | 0.08 | 1000 | GRAY | RED | BLACK |
| WB1008T10NS | 10 | 50 | K, J | 50 | 500 | 4100 | 0.08 | 1000 | BROWN | BLACK | BLACK |
| WB1008T12NS | 12 | 50 | K, J | 50 | 500 | 3300 | 0.09 | 1000 | BROWN | RED | BLACK |
| WB1008T15NS | 15 | 50 | K, J | 50 | 500 | 2500 | 0.10 | 1000 | BROWN | GREEN | BLACK |
| WB1008T18NS | 18 | 50 | K, J, G | 50 | 350 | 2500 | 0.11 | 1000 | BROWN | GRAY | BLACK |
| WB1008T22NS | 22 | 50 | K, J, G | 55 | 350 | 2400 | 0.12 | 1000 | RED | RED | BLACK |
| WB1008T24NS | 24 | 50 | K, J, G | 50 | 350 | 1900 | 0.13 | 1000 | RED | YELLOW | BLACK |
| WB1008T27NS | 27 | 50 | K, J, G | 55 | 350 | 1600 | 0.13 | 1000 | RED | VIOLET | BLACK |
| WB1008T33NS | 33 | 50 | K, J, G | 60 | 350 | 1600 | 0.14 | 1000 | ORANGE | ORANGE | BLACK |
| WB1008T36NS | 36 | 50 | K, J, G | 60 | 350 | 1600 | 0.15 | 1000 | ORANGE | BLUE | BLACK |
| WB1008T39NS | 39 | 50 | K, J, G | 60 | 350 | 1500 | 0.15 | 1000 | ORANGE | WHITE | BLACK |
| WB1008T47N | 47 | 50 | K, J, G | 65 | 350 | 1500 | 0.16 | 1000 | YELLOW | VIOLET | BLACK |
| WB1008T56NS | 56 | 50 | K, J, G | 65 | 350 | 1300 | 0.18 | 1000 | GREEN | BLUE | BLACK |
| WB1008T62NS | 62 | 25 | K, J, G | 45 | 350 | 1250 | 0.20 | 1000 | BLUE | GRAY | BLACK |
| WB1008T68NS | 68 | 50 | K, J, G | 65 | 350 | 1300 | 0.20 | 1000 | BLUE | GRAY | BLACK |
| WB1008T75NS | 75 | 50 | K, J, G | 60 | 350 | 1100 | 0.21 | 1000 | BLUE | GRAY | BLACK |
| WB1008T82NS | 82 | 50 | K, J, G | 60 | 350 | 1000 | 0.22 | 1000 | GRAY | RED | BLACK |
| WB1008TR10S | 100 | 25 | K, J, G | 60 | 350 | 1000 | 0.56 | 650 | BROWN | BLACK | BROWN |
| WB1008TR12S | 120 | 25 | K, J, G | 60 | 350 | 950 | 0.63 | 650 | BROWN | RED | BROWN |
| WB1008TR13S | 130 | 25 | K, J, G | 50 | 350 | 900 | 0.68 | 620 | BROWN | RED | BROWN |
| WB1008TR15S | 150 | 25 | K, J, G | 45 | 100 | 850 | 0.70 | 580 | BROWN | GREEN | BROWN |
| WB1008TR18S | 180 | 25 | K, J, G | 45 | 100 | 750 | 0.77 | 620 | BROWN | GRAY | BROWN |
| WB1008TR20S | 200 | 25 | K, J, G | 50 | 100 | 750 | 0.81 | 500 | RED | BLACK | BROWN |
| WB1008TR22S | 220 | 25 | K, J, G | 45 | 100 | 700 | 0.84 | 500 | RED | RED | BROWN |
| WB1008TR24S | 240 | 25 | K, J, G | 50 | 100 | 650 | 0.84 | 500 | RED | YELLOW | BROWN |
| WB1008TR27S | 270 | 25 | K, J, G | 45 | 100 | 600 | 0.91 | 500 | RED | VIOLET | BROWN |
| WB1008TR30S | 300 | 25 | K, J, G | 45 | 100 | 585 | 1.05 | 660 | ORANGE | BLACK | BROWN |
| WB1008TR33S | 330 | 25 | K, J, G | 45 | 100 | 570 | 1.05 | 450 | ORANGE | ORANGE | BROWN |
| WB1008TR36S | 360 | 25 | K, J, G | 45 | 100 | 530 | 1.05 | 660 | ORANGE | BLUE | BROWN |
| WB1008TR39S | 390 | 25 | K, J, G | 45 | 100 | 500 | 1.12 | 470 | ORANGE | WHITE | BROWN |
| WB1008TR43S | 430 | 25 | K, J, G | 45 | 100 | 480 | 1.19 | 600 | YELLOW | ORANGE | BROWN |
| WB1008TR47S | 470 | 25 | K, J, G | 45 | 100 | 450 | 1.19 | 470 | YELLOW | VIOLET | BROWN |
| WB1008TR56S | 560 | 25 | K, J, G | 45 | 100 | 415 | 1.33 | 400 | GREEN | BLUE | BROWN |
| WB1008TR62S | 620 | 25 | K, J, G | 45 | 100 | 375 | 1.40 | 300 | BLUE | RED | BROWN |
| WB1008TR68S | 680 | 25 | K, J, G | 45 | 100 | 375 | 1.47 | 400 | BLUE | GRAY | BROWN |
| WB1008TR75S | 750 | 25 | K, J, G | 45 | 100 | 360 | 1.54 | 360 | VIOLET | GREEN | BROWN |
| WB1008TR82S | 820 | 25 | K, J, G | 45 | 100 | 350 | 1.61 | 400 | GRAY | RED | BROWN |
| WB1008TR91S | 910 | 25 | K, J, G | 35 | 50 | 320 | 1.68 | 380 | WHITE | BROWN | BROWN |
| WB1008T1R0S | 1000 | 25 | K, J, G | 35 | 50 | 290 | 1.75 | 370 | BROWN | BLACK | RED |
| WB1008T1R2S | 1200 | 25 | K, J, G | 35 | 50 | 250 | 2.0 | 310 | BROWN | RED | RED |
| WB1008T1R5S | 1500 | 7.9 | K, J, G | 28 | 50 | 200 | 2.3 | 330 | BROWN | GREEN | RED |
| WB1008T1R8S | 1800 | 7.9 | K, J, G | 28 | 50 | 160 | 2.6 | 300 | BROWN | GRAY | RED |
| WB1008T2R0S | 2000 | 7.9 | K, J, G | 25 | 50 | 160 | 2.8 | 280 | RED | BLACK | RED |
| WB1008T2R2S | 2200 | 7.9 | K, J, G | 28 | 50 | 160 | 2.8 | 280 | RED | RED | RED |
| WB1008T2R7S | 2700 | 7.9 | K, J, G | 22 | 25 | 140 | 3.2 | 290 | RED | VIOLET | RED |
| WB1008T3R3S | 3300 | 7.9 | K, J, G | 22 | 25 | 110 | 3.4 | 290 | ORANGE | ORANGE | RED |
| WB1008T3R9S | 3900 | 7.9 | K, J, G | 20 | 25 | 100 | 3.6 | 260 | ORANGE | WHITE | RED |
| WB1008T4R7S | 4700 | 7.9 | K, J, G | 20 | 25 | 90 | 4.0 | 260 | YELLOW | VIOLET | RED |
| WB1008T5R6S | 5600 | 7.9 | K, J | 16 | 7.96 | 20 | 4.5 | 240 | GREEN | BLUE | RED |
| WB1008T8R2S | 8200 | 7.9 | K, J, G | 15 | 7.96 | 25 | 6.0 | 170 | GRAY | RED | RED |
| WB1008T103S | 10000 | 2.52 | K, J | 15 | 7.96 | 20 | 9.0 | 150 | BROWN | BLACK | ORANGE |
| WB1008T123S | 12000 | 2.52 | K, J | 15 | 7.96 | 18 | 10.5 | 130 | BROWN | RED | ORANGE |
| WB1008T153S | 15000 | 2.52 | K, J | 15 | 7.96 | 15 | 11.5 | 120 | BROWN | GREEN | ORANGE |

RELIABILITY EXPERIMENT FOR ELECTRICAL

| TEST ITEM | ACCEPT CRITERIA | TEST CONDITION | STANDARD SOURCE |
|-----------------------|---|---|---|
| HUMIDITY TEST | - Change from an initial value L: within±5% - No visible damage. | +40°C± 2°C, humidity of 90% ±5% (total 96 hours) | - MIL-STD-202H - Method 103 - Test Condition B |
| HIGH TEMPERATURE TEST | - Change from an initial value L: within±5% - No visible damage. | - Temperature: +125°C ± 2°C - Test time: 72 ± 2hrs | - IEC 68-2 - Test Condition B |
| LOW TEMPERATURE TEST | - Change from an initial value L: within±5% - No visible damage. | - Temperature: -40°C ± 2°C - Test time: 72 ± 2hrs | - IEC 68-2 - Test Condition A |
| THERMAL SHOCK | - Change from an initial value L: within±5% - No visible damage. | - +125°C ± 5°C (30 minutes) - 65 ± 5°C (30minutes) - temperature switch time: 5 minutes (total 50 cycles) | - Reference - MIL-STD-202H - Method 107 - Test Condition B-2 |
| LIFE TEST | - Change from an initial value L: within±5% - No visible damage. | +70°C± 5°C (250 Hours) | - Reference - MIL-STD-202H - Method 108 - Test Condition B |

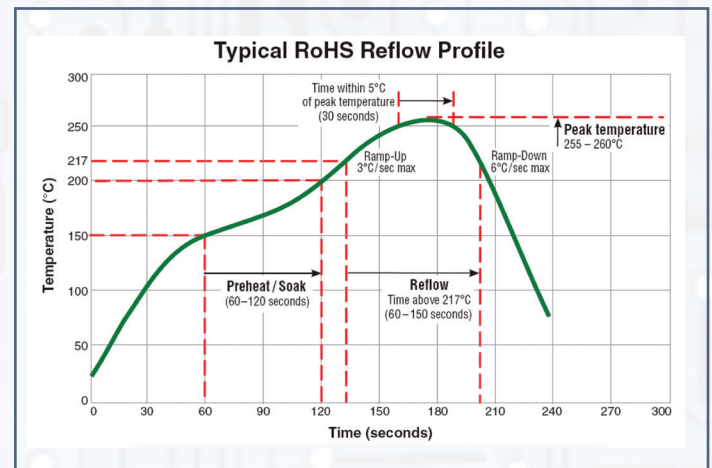
RELIABILITY EXPERIMENT FOR PHYSICAL

| TEST ITEM | ACCEPT CRITERIA | TEST CONDITION | STANDARD SOURCE |
|-----------------------------|---|--|--|
| VIBRATION TEST | - Change from an initial value L: within±5% - No visible damage. | - 10-55-10HZ - amplitude: 1.5mm, - direction: X, Y, Z axes - each axis 2 hours (total 6 hours) | - MIL-STD-202H - Method 201 |
| SOLDER HEAT RESISTANCE TEST | - No visible damage. | - IR/convection reflow: Peak Temp 250±5°C for 30 ± 5 Sec. in air, - Through 3 Cycle. - Temperature Ramp:+1~4°C/sec.; - Above 183°C, must keep 90 s -120 s | - Reference - MIL-STD-202H - Method 210 - Test Condition K (Reflow) |
| SOLDER ABILITY TEST | -T: must have 95% above coverage | - Solder temp: 245±5°C, - Immersion time: 5 second. - Immersion rate: 25±6mm/sec. | - J-STD-002D - Test condition B1 |

MATERIAL LIST

| ITEM | MATERIAL CATEGORY | MATERIAL TYPE | UL NO. |
|------|-------------------|---------------|---------|
| 1 | WIRE | POLYSOL | E143312 |
| 2 | CORE | CERAMIC CORE | |
| 3 | EPOXY | UV TYPE | |
| 4 | TERMINAL PLATEING | AgPd+Ni+Sn | |

REFLOW CHART

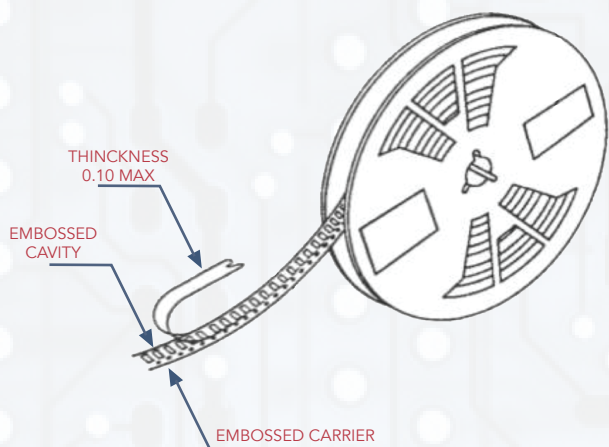


TEST INSTRUMENT

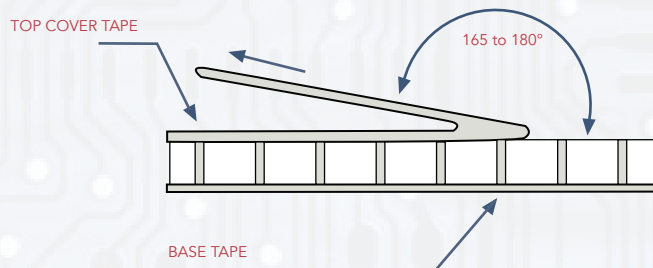
- 8-1 Inductance Q TEST BY HP4291B
- 8-2 SRF TEST BY HP 8753E
- 8-3 DC Resistance TEST BY ZENTECH 502BC



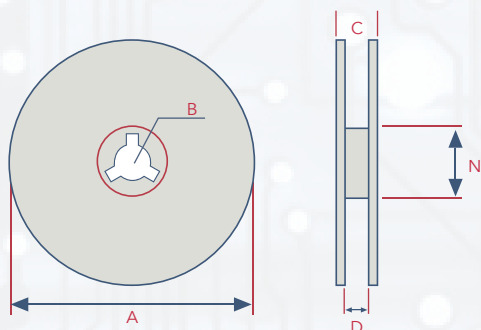
PACKAGING SPECIFICATION



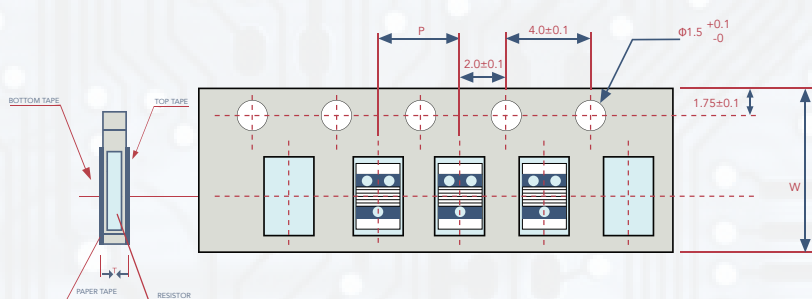
- The force for tearing off over tape is 10 to 100 grams in the arrow direction



CARRIER TAPE REELS (MM)



DIMENSIONS OF CARRIER TAPE (MM)



WB0402T Quantity Per Reel: 4k Pcs

UNIT=mm

| | A | B | C | D | N | P | W | T |
|------|------|----------|--------|------|------|------|------|-------|
| DIM. | 178 | 13.0 | 8.4 | 14.4 | 50 | 2.0 | 8.0 | 0.68 |
| TOL. | MAX. | ±0.5-0.2 | +2.0-0 | MAX | MIN. | ±0.1 | ±0.2 | ±0.03 |

WB0603T Quantity Per Reel: 4k Pcs

UNIT=mm

| | A | B | C | D | N | P | W | T |
|------|------|------|--------|------|------|------|------|-------|
| DIM. | 180 | 13.0 | 8.4 | 12.5 | 50 | 4.0 | 8.0 | 0.25 |
| TOL. | MAX. | ±0.8 | +1.0-0 | MAX | MIN. | ±0.1 | ±0.2 | ±0.05 |

WB0805T Quantity Per Reel: 3k Pcs

UNIT=mm

| | A | B | C | D | N | P | W | T |
|------|------|------|--------|------|------|------|------|-------|
| DIM. | 178 | 13.0 | 8.4 | 12.5 | 50 | 4.0 | 8.0 | 0.25 |
| TOL. | ±2.0 | ±0.8 | +1.0-0 | MAX | MIN. | ±0.1 | ±0.2 | ±0.05 |

WB1008T Quantity Per Reel: 2k Pcs

UNIT=mm

| | A | B | C | D | N | P | W | T |
|------|------|------|--------|------|------|------|------|-------|
| DIM. | 178 | 13.0 | 8.4 | 12.5 | 50 | 4.0 | 8.0 | 0.25 |
| TOL. | ±2.0 | ±0.8 | +1.0-0 | MAX | MIN. | ±0.1 | ±0.2 | ±0.05 |

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