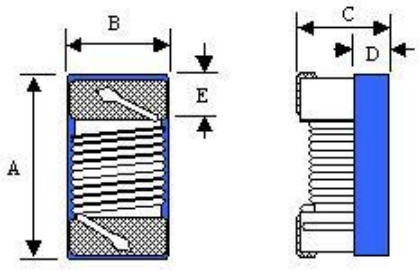
(1) SHAPES AND DIMENSIONS



A: 2.90 Max. mm
B: 2.54 Max. mm
C: 2.03 Max. mm
D: 1.3 Typ. mm
E: 0.45± 0.1 mm

(2) ELECTRICAL SPECIFICATIONS

SEE TABLE 1

TEST INSTRUMENTS

L,Q : HP 4291B IMPEDANCE ANALYZER (or equivalent)

SRF : ENA E5071B NETWORK ANALYZER (or equivalent)

RDC : CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)

(3) CHARACTERISTICS

(3)-1 Operate temperature range ..... －40℃～＋125℃
(Including self temp. rise)

(3)-2 Storage temperature range ..... －40℃～＋125℃

TABLE 1

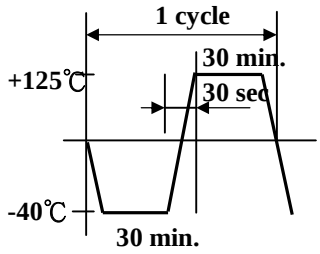
MAGLAYERS PT/NO.	Inductance L(nH)	Percent Tolerance	L Freq. (MHz)	Quality Min.	Q Freq. (MHz)	SRF (MHz)Min.	DCR (Ω) Max.	IDC (mA) Max.
MHSC-2520C-4N7□	4.7	J,K	50	30	500	4300	0.065	1000
MHSC-2520C-10N□	10	G,J,K	50	50	500	4100	0.08	1000
MHSC-2520C-12N□	12	G,J,K	50	50	500	3300	0.09	1000
MHSC-2520C-15N□	15	G,J,K	50	50	500	2500	0.10	1000
MHSC-2520C-18N□	18	G,J,K	50	50	350	2500	0.11	1000
MHSC-2520C-22N□	22	G,J,K	50	55	350	2400	0.12	1000
MHSC-2520C-27N□	27	G,J,K	50	50	350	1600	0.13	1000
MHSC-2520C-33N□	33	G,J,K	50	60	350	1600	0.14	1000
MHSC-2520C-39N□	39	G,J,K	50	60	350	1500	0.15	1000
MHSC-2520C-47N□	47	G,J,K	50	65	350	1500	0.16	1000
MHSC-2520C-56N□	56	G,J,K	50	65	350	1300	0.18	1000
MHSC-2520C-68N□	68	G,J,K	50	65	350	1300	0.20	1000
MHSC-2520C-82N□	82	G,J,K	50	60	350	1000	0.22	1000
MHSC-2520C-R10□	100	G,J,K	25	60	350	1000	0.56	650
MHSC-2520C-R12□	120	G,J,K	25	60	350	950	0.63	650
MHSC-2520C-R15□	150	G,J,K	25	45	100	850	0.70	580
MHSC-2520C-R18□	180	G,J,K	25	45	100	750	0.77	620
MHSC-2520C-R22□	220	G,J,K	25	45	100	700	0.84	500
MHSC-2520C-R27□	270	G,J,K	25	45	100	600	0.91	500
MHSC-2520C-R33□	330	G,J,K	25	45	100	570	1.05	450
MHSC-2520C-R39□	390	G,J,K	25	45	100	500	1.12	470
MHSC-2520C-R47□	470	G,J,K	25	45	100	450	1.19	470
MHSC-2520C-R56□	560	G,J,K	25	45	100	415	1.33	400
MHSC-2520C-R62□	620	G,J,K	25	45	100	375	1.40	300
MHSC-2520C-R68□	680	G,J,K	25	45	100	375	1.47	400
MHSC-2520C-R75□	750	G,J,K	25	45	100	360	1.54	360
MHSC-2520C-R82□	820	G,J,K	25	45	100	350	1.61	400
MHSC-2520C-R86□	860	G,J,K	25	45	100	330	1.65	400
MHSC-2520C-R91□	910	G,J,K	25	35	50	320	1.68	380
MHSC-2520C-1R0□	1000	G,J,K	25	35	50	290	1.75	400
MHSC-2520C-1R2□	1200	G,J,K	7.9	35	50	250	2.0	310
MHSC-2520C-1R5□	1500	G,J,K	7.9	28	50	200	2.3	330
MHSC-2520C-1R8□	1800	G,J,K	7.9	28	50	160	2.6	300
MHSC-2520C-2R2□	2200	G,J,K	7.9	28	50	160	2.8	280
MHSC-2520C-2R7□	2700	G,J,K	7.9	22	25	135	3.2	290
MHSC-2520C-3R3□	3300	G,J,K	7.9	22	25	110	3.4	290
MHSC-2520C-3R9□	3900	G,J,K	7.9	20	25	100	3.6	260
MHSC-2520C-4R7□	4700	G,J,K	7.9	20	25	90	4.0	260
MHSC-2520C-5R6□	5600	G,J,K	7.9	18	7.9	40	4.2	240
MHSC-2520C-6R8□	6800	G,J,K	7.9	18	7.9	40	4.9	200
MHSC-2520C-8R2□	8200	G,J,K	7.9	18	7.9	25	6.0	170
MHSC-2520C-100□	10000	G,J,K	2.5	18	7.9	25	8.0	150

※ 1. □ specify the inductance tolerance, G(±2%),J(±5%),K(±10%)

2. IDC : Based on temperature rise(△T=15℃ Typ.) at 25℃ ambient.

(4) RELIABILITY TEST METHOD

Item	Specifications	Test conditions
Solderability	The metalized area must have 95% minimum solder coverage.	Dip pads in flux and dip in solder pot (96.5 Sn/3.5 Ag solder) at 255°C ±5°C.
Resistance to soldering heat	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be reflowed onto a PC board using 96.5 Sn/3.5 Ag solder paste. Solder process shall be at a maximum temperature of 260°C. For 96.5 Sn/3.5 Ag solder paste:>217°C for 90 seconds
Vibration	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Solder specimen inductor on the test printed circuit board. Apply vibrations in each of the x,y and z directions for 2 house for a total of 6 hours. Frequency : 10~50 Hz Amplitude : 1.5mm
High temperature resistance	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to temperature 125±2℃ for 50±12 hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Static Humidity	Inductors must not have a shorted or open winding.	Inductors shall be subjected to temperature 85±2℃ and 90 to 95%RH. for ten 24-hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Component adhesion (push test)	Inductors shall be subjected to 1.8Kg	Inductors shall be reflow soldered (255°C ±5°C for 10 seconds) to a tinned copper substrate. A force gauge shall be applied to the side of the component. The device must withstand the stated force without a failure of the termination.

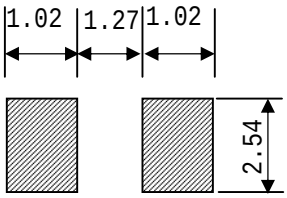
Item	Specifications	Test conditions
Low temperature storage	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to temperature -40±2℃ for 48±12 hours. Measure the test items after leaving the inductors at room temperature and humidity for 1 to 2 hours.
Resistance to solvent	There must be no case deformation, change in dimensions, or obliteration of marking.	Inductors must withstand 6 minutes of alcohol or water.
Thermal shock	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to 10 cycles to the the following temperature cycle:  Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.

(5) RECOMMENDED SOLDERING CONDITIONS

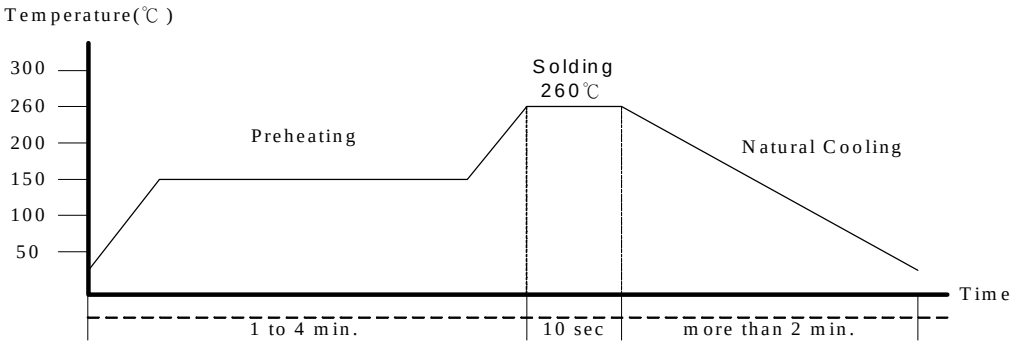
(Please use this product by reflow soldering)

(5)-1 RECOMMENDED FOOTPRINT

Unit: mm



(5)-2 RECOMMENED REFLOW PATTERN



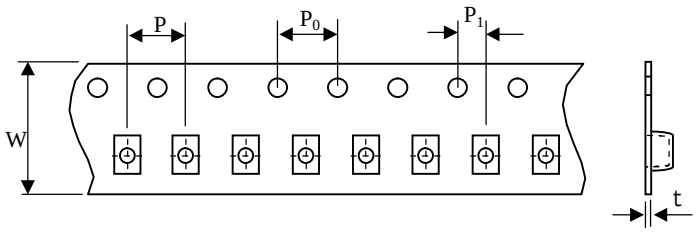
(5)-3 IRON SOLDERING

Use a solder iron of less than 30W when soldering ,do not allow the soldering iron tip directly touch the Ceramic body outside of terminal electrode.

3 seconds max. at 260℃.

(6) PACKAGING

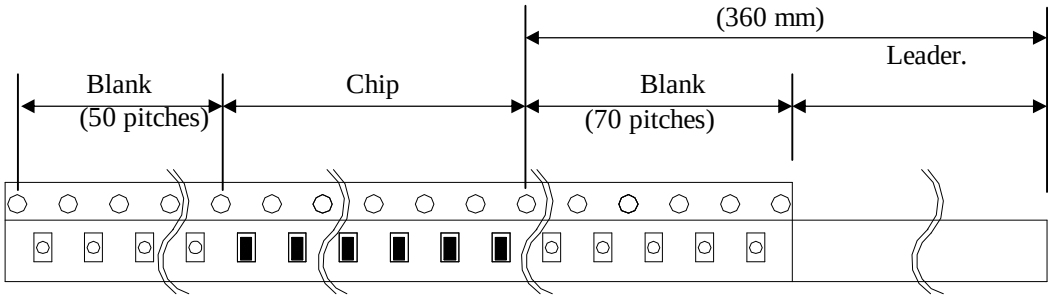
(6)-1 CARRIER TAPE DIMENSIONS (mm)



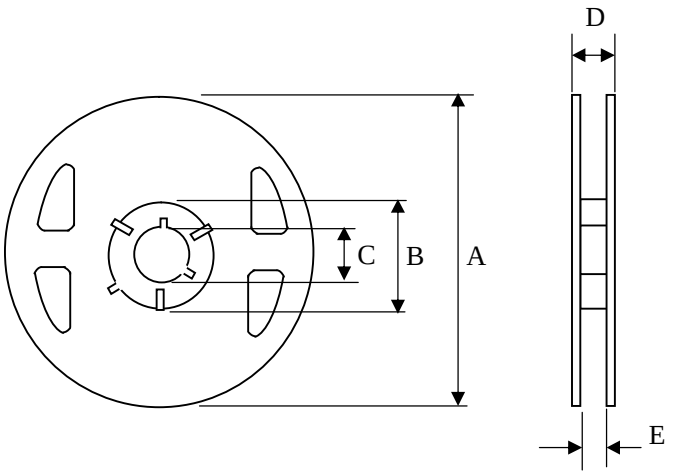
W : 8.0 mm
P : 4.0 mm
P0 : 4.0 mm
P1 : 2.0 mm
t : 0.22 mm

(6)-2 TAPING DIMENSIONS (mm)

There shall not continuation more than two vacancies of the product.



(6)-3 REEL DIMENSIONS



A : 180 mm
B : 60.0 mm
C : 13.0 mm
D : 14.4 mm
E : 8.4 mm

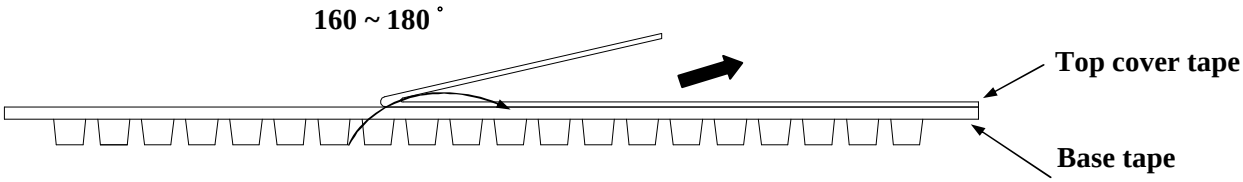
(6)-4 TOP TAPE PEEL STRENGTH

The force for tearing off cover tape is 0.1~0.6(N) in the arrow direction at the following conditions:

Temperature : 5 ~ 35℃

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa



(6)-5 QUANTITY

2000 pcs/Reel

(6)-6 The products are packaged so that no damage will be sustained.

(7) ATTENTION IN CASE OF USING

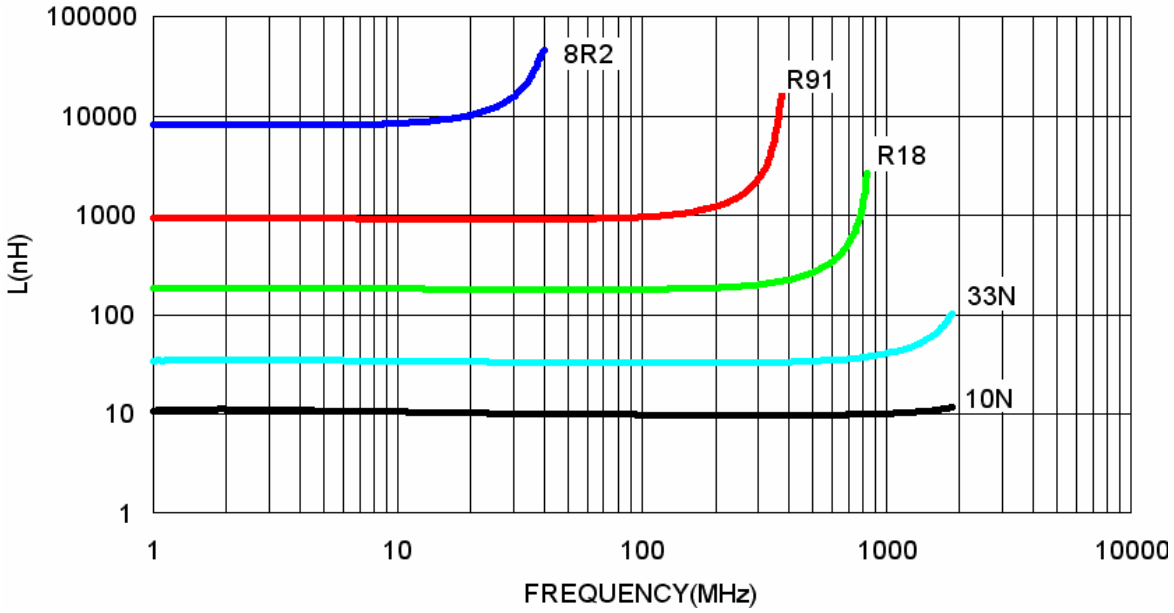
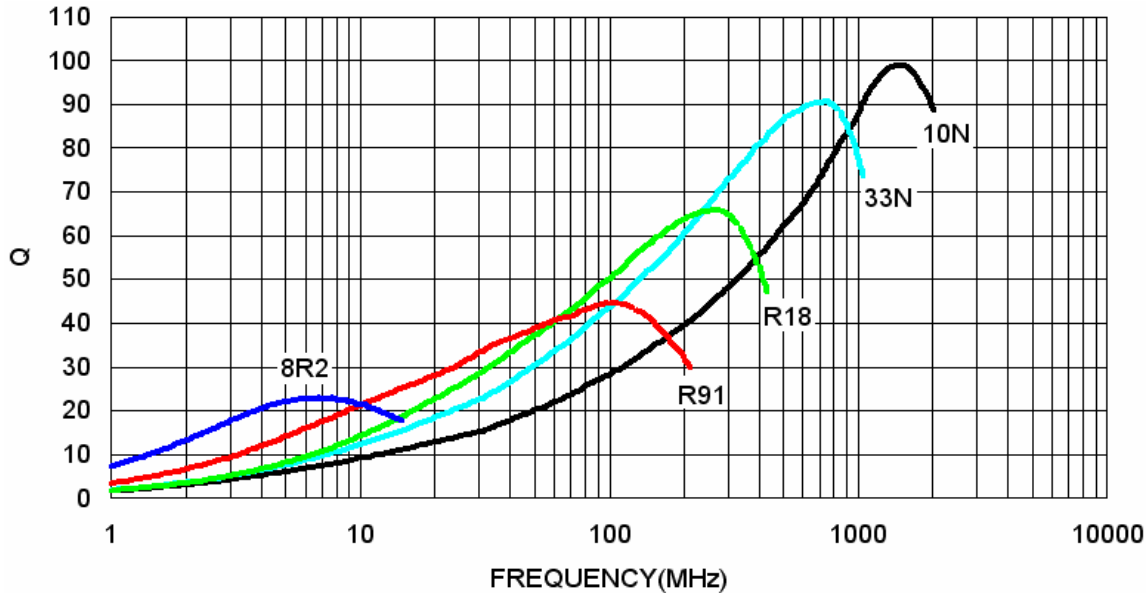
In case of using product ,please avoid following matters:

Splashing water or salt water

Dew condenses

Toxic gas (Hydrogen sulfide, Sulfurous acid ,Chlorine, Ammonia)

Vibrations or shocks which exceed the specified condition

Please be careful for the stress to this product by board flexure or something after the mounting.

TYPICAL ELECTRICAL CHARACTERISTICS