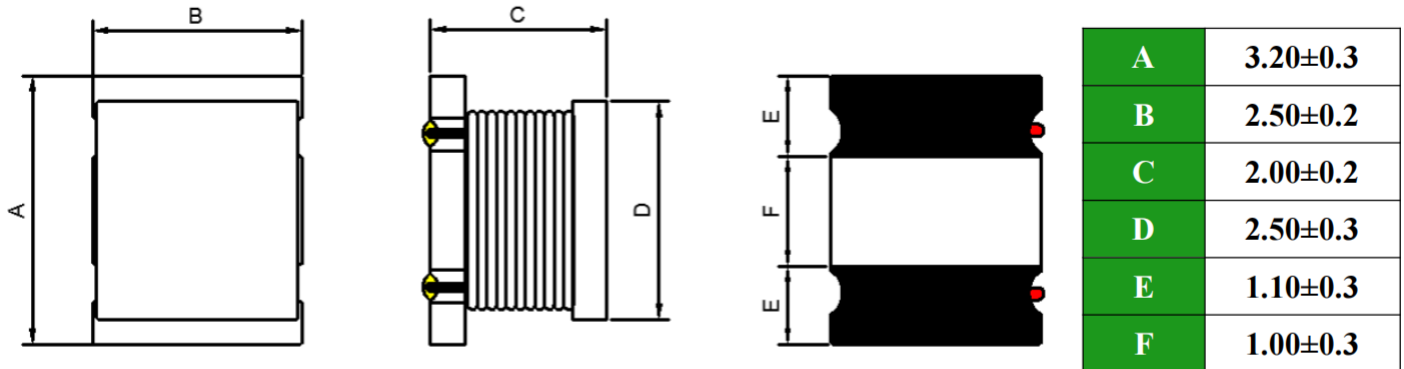
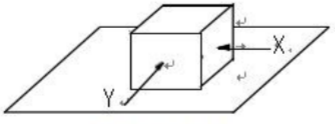
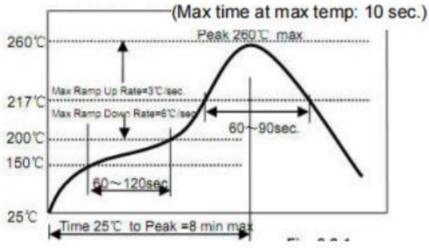
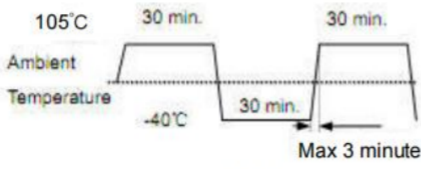


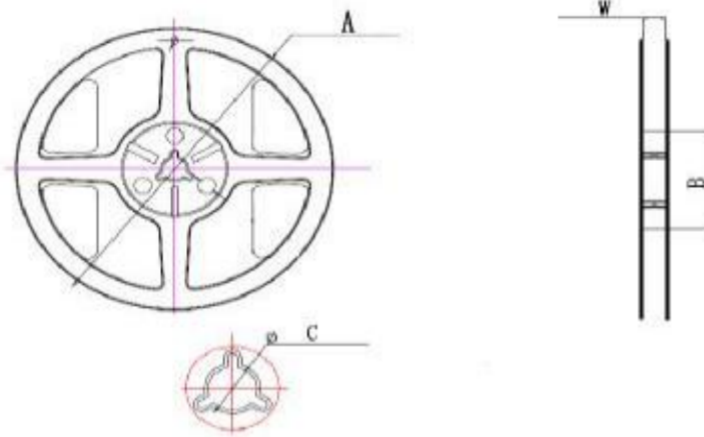
**SMD Power Inductors**
**◆ Dimensions(Unit:mm):**

**◆ Electrical Characteristics:**

| Part No          | Inductance<br>( $\mu$ H) | Tolerance<br>( $\pm\%$ ) | Test<br>Condition | RDC<br>( $\Omega$ ) | Idc<br>(A) | S.R.F<br>(MHz) |
|------------------|--------------------------|--------------------------|-------------------|---------------------|------------|----------------|
|                  |                          |                          |                   | Max                 | MAX        | Min            |
| SCN322520NR27MST | 1.0                      | 20                       | 1MHz/1.0V         | 0.045               | 1.25       | 250            |
| SCN322520N1R0MST | 2.2                      | 20                       | 1MHz/1.0V         | 0.078               | 1.00       | 100            |
| SCN322520N2R2MST | 3.3                      | 20                       | 1MHz/1.0V         | 0.126               | 0.79       | 64             |
| SCN322520N4R7MST | 4.7                      | 20                       | 1MHz/1.0V         | 0.195               | 0.65       | 43             |
| SCN322520N100KST | 6.8                      | 10                       | 1MHz/1.0V         | 0.390               | 0.45       | 26             |
| SCN322520N220KST | 10.0                     | 10                       | 1MHz/1.0V         | 0.923               | 0.25       | 17             |
| SCN322520N101KST | 22.0                     | 10                       | 1MHz/1.0V         | 4.55                | 0.10       | 10             |
| SCN322520N221KST | 33.0                     | 10                       | 1MHz/1.0V         | 10.92               | 0.07       | 6.8            |

※: This indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition and D.C current when temperature rise  $\Delta T=20^{\circ}\text{C}$ . ( $T_a=25^{\circ}\text{C}$ )

**◆ Reliability Test**

| Items                                  | Requirements  | Test Method/Condition  |
|--|---|--|
| <b>Terminal Strength</b>               | No removal or split of the termination or other defects shall occur<br><br>Fig.7.1-1   | 1.Solder the inductor to the testing jig (glass epoxy board shown in Fig.7.1-1) using eutectic solder. Then apply a force in the direction of the arrow.<br>2.10N force<br>3.Keep time: 5±2s   |
| <b>High Temperature</b>                | 1.No visible mechanical damage<br>2.Inductance change: Within ±10%.   | 1.Storage Temperature :125±5°C<br>2.Duration : 96 ±4 Hours<br>3.Recovery : then measured at room ambient temperature after placing 24 hours.   |
| <b>Low Temperature</b>                 | 1.No visible mechanical damage<br>2.Inductance change: Within ±10%  | 1.Temperature and time: -40±5°C<br>2.Duration: 96 ±4 hours<br>3.Recovery : then measured at room ambient temperature after placing 24 hours  |
| <b>Vibration test</b>                  | 1.No visible mechanical damage<br>2.Inductance change: Within ±10%  | 1.Frequency range:10Hz~55Hz~10Hz<br>2.Amplitude:1.5mm p-p<br>3.Direction:X,Y,Z<br>4.Time:1 minute/cycle,2hours per axis  |
| <b>High Temperature Storage Tested</b> | 1.No visible mechanical damage.<br>2.Inductance change: Within ±10%   | 1.Storage Temperature :60±2°C<br>2.Relative Humidity :90-95% RH<br>3.Duration : 96 ±4 Hours<br>4.Recovery : then measured at room ambient temperature after placing 24 hours   |
| <b>Resistance to Soldering Heat</b>    | 1.No visible mechanical damage<br>2.Inductance change: Within ±10%<br><br>Fig.7.6-1  | 1.Re-flowing Profile: Please refer to Fig.7.6-1<br>2.Test board thickness: 1.0mm<br>3.Test board material: glass epoxy resin<br>4.The chip shall be stabilized at normal condition for 1~2 hours before measuring                                      |
| <b>Thermal Shock</b>                   | 1.No visible mechanical damage.<br>2.Inductance change: Within ±10%<br><br>Fig.7.7-1 | 1.Temperature and time: -40±3°C for 30±3 min→ 105°C for 30±3min, please refer to Fig.7.7-1<br>2.Transforming interval: Max,3 minute<br>3.Tested cycle: 100 cycles<br>4.The chip shall be stabilized at normal condition for 1~2 hours before measuring |

**◆ Packaging**


| Part NO           | A       | B       | C        | W        | Quantity  |
|-------------------|---------|---------|----------|----------|-----------|
| SCN322520N Series | 180±0.5 | 100±0.5 | 13.5±0.5 | 12.5±0.5 | 2000Pcs/R |