

Features:

- Wirewound of ferrite core miniature chip inductor
- LPM1310, 1310-HP and 1813 are high Q value at high frequency and low DC resistance
- LPM1310(C)-HP and 1813(C) are low DC resistance, high current capacity and high impedance characteristics.
They are excellent for using as a choke coil in DC power supply circuits
- 100% RoHS compliant and lead free without exemption
- Halogen free
- REACH compliant



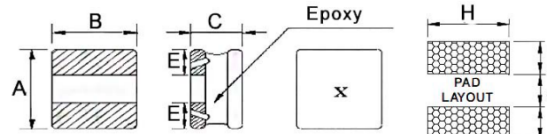
Applications:

- High frequency communication products
- Personal computers
- Disk drives and computer peripherals
- DC power supply circuits

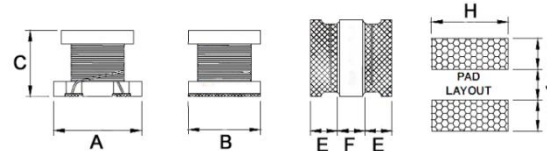
| Inductance and Current Ranges | | |
|-------------------------------|-----------------|-------------------|
| Type / Code | Inductance (μH) | Current Range (A) |
| LPM1008 | 1 ~ 22 | 2.2 ~ 0.5 |
| LPM1008...-HP | 1 ~ 22 | 2.8 ~ 0.55 |
| LPM1010 | 1 ~ 22 | 2.3 ~ 0.51 |
| LPM1310 | 1 ~ 100 | 1 ~ 0.1 |
| LPM1310...-HP | 1 ~ 560 | 0.445 ~ 0.04 |
| LPM1310(C) | 0.47 ~ 120 | 3.4 ~ 0.17 |
| LPM1310(C)...-HP | 1 ~ 560 | 1 ~ 0.06 |
| LPM1813 | 1 ~ 2200 | 0.5 ~ 0.03 |
| LPM1813(C) | 1 ~ 470 | 1.08 ~ 0.09 |
| LPM2220(C) | 0.12 ~ 10000 | 6 ~ 0.05 |

Electrical specifications at 25 °C

Mechanical Specifications



| Type / Code | A | B | C | E | H | I | J | Unit |
|---------------|------------------------------|------------------------------|-----------------------|-----------------------|---------------|---------------|---------------|--------------|
| LPM1008 | 0.098 ± 0.008 2.50 ± 0.20 | 0.079 ± 0.008 2.00 ± 0.20 | 0.040 max 1.02 max | 0.031 ref 0.80 ref | 0.079 2.00 | 0.033 0.85 | 0.031 0.80 | inches mm |
| LPM1008...-HP | 0.098 ± 0.008 2.50 ± 0.20 | 0.079 ± 0.008 2.00 ± 0.20 | 0.047 max 1.20 max | 0.031 ref 0.80 ref | 0.079 2.00 | 0.033 0.85 | 0.031 0.80 | inches mm |



| Type / Code | A | B | C | E | F | H | I | J | Unit |
|------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|---------------|---------------|---------------|--------------|
| LPM1010 | 0.098 ± 0.008 2.50 ± 0.20 | 0.098 ± 0.008 2.50 ± 0.20 | 0.041 max 1.05 max | 0.035 ref 0.90 ref | 0.028 ref 0.70 ref | 0.098 2.50 | 0.047 1.20 | 0.031 0.80 | inches mm |
| LPM1310(C) | 0.126 ± 0.012 3.20 ± 0.30 | 0.098 ± 0.008 2.50 ± 0.20 | 0.061 ± 0.012 1.55 ± 0.30 | 0.041 ± 0.012 1.05 ± 0.30 | 0.041 ± 0.012 1.05 ± 0.30 | 0.079 2.00 | 0.059 1.50 | 0.039 1.00 | inches mm |
| LPM1310(C)...-HP | 0.126 ± 0.012 3.20 ± 0.30 | 0.098 ± 0.008 2.50 ± 0.20 | 0.079 ± 0.012 2.00 ± 0.30 | 0.028 min 0.70 min | 0.028 min 0.70 min | 0.079 2.00 | 0.059 1.50 | 0.039 1.00 | inches mm |
| LPM1813(C) | 0.177 ± 0.012 4.50 ± 0.30 | 0.126 ± 0.008 3.20 ± 0.20 | 0.102 ± 0.016 2.60 ± 0.40 | 0.039 min 1.00 min | 0.039 min 1.00 min | 0.118 3.00 | 0.079 2.00 | 0.047 1.20 | inches mm |
| LPM2220(C) | 0.224 ± 0.012 5.70 ± 0.30 | 0.197 ± 0.012 5.00 ± 0.30 | 0.185 ± 0.012 4.70 ± 0.30 | 0.051 min 1.30 min | 0.067 min 1.70 min | 0.197 5.00 | 0.079 2.00 | 0.079 2.00 | inches mm |

Electrical Specifications – LPM1008

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max | I rms (A) typical | I sat (A) typical | Marking Code |
|--------------|--------|-----------|----------------|-------------|-------------------|-------------------|--------------|
| LPM1008MT1R0 | 1.0 | 20% | 1 MHz, 0.1 V | 0.121 | 2.2 | 2.2 | A |
| LPM1008MT1R5 | 1.5 | 20% | 1 MHz, 0.1 V | 0.193 | 1.8 | 1.9 | B |
| LPM1008MT2R2 | 2.2 | 20% | 1 MHz, 0.1 V | 0.232 | 1.68 | 1.6 | C |
| LPM1008MT3R3 | 3.3 | 20% | 1 MHz, 0.1 V | 0.372 | 1.34 | 1.2 | D |
| LPM1008MT4R7 | 4.7 | 20% | 1 MHz, 0.1 V | 0.548 | 1 | 1 | E |
| LPM1008MT5R6 | 5.6 | 20% | 1 MHz, 0.1 V | 0.626 | 0.9 | 0.9 | F |
| LPM1008MT6R8 | 6.8 | 20% | 1 MHz, 0.1 V | 0.778 | 0.9 | 0.9 | G |
| LPM1008MT100 | 10 | 20% | 1 MHz, 0.1 V | 1.036 | 0.8 | 0.7 | H |
| LPM1008MT220 | 22 | 20% | 1 MHz, 0.1 V | 2.391 | 0.5 | 0.5 | I |

Electrical Specifications – LPM1008-HP

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max | I rms (A) typical | I sat (A) typical | Marking Code |
|-----------------|--------|-----------|----------------|-------------|-------------------|-------------------|--------------|
| LPM1008MT1R0-HP | 1.0 | 20% | 1 MHz, 0.1 V | 0.137 | 2.2 | 2.8 | A |
| LPM1008MT1R5-HP | 1.5 | 20% | 1 MHz, 0.1 V | 0.19 | 1.86 | 2.2 | B |
| LPM1008MT2R2-HP | 2.2 | 20% | 1 MHz, 0.1 V | 0.285 | 1.7 | 1.8 | C |
| LPM1008MT3R3-HP | 3.3 | 20% | 1 MHz, 0.1 V | 0.454 | 1.2 | 1.3 | D |
| LPM1008MT4R7-HP | 4.7 | 20% | 1 MHz, 0.1 V | 0.659 | 1.04 | 1.1 | E |
| LPM1008MT5R6-HP | 5.6 | 20% | 1 MHz, 0.1 V | 0.685 | 1 | 1.1 | F |
| LPM1008MT6R8-HP | 6.8 | 20% | 1 MHz, 0.1 V | 0.988 | 0.94 | 0.94 | G |
| LPM1008MT100-HP | 10 | 20% | 1 MHz, 0.1 V | 1.19 | 0.84 | 0.82 | H |
| LPM1008MT220-HP | 22 | 20% | 1 MHz, 0.1 V | 2.743 | 0.54 | 0.55 | I |

Electrical Specifications – LPM1010

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) typical | I rms (A) typical | I sat (A) typical |
|--------------|--------|-----------|----------------|-----------------|-------------------|-------------------|
| LPM1010MT1R0 | 1.0 | 20% | 1 MHz, 0.1 V | 0.085 | 1.9 | 2.30 |
| LPM1010MT1R5 | 1.5 | 20% | 1 MHz, 0.1 V | 0.115 | 1.5 | 1.90 |
| LPM1010MT2R2 | 2.2 | 20% | 1 MHz, 0.1 V | 0.168 | 1 | 1.50 |
| LPM1010MT3R3 | 3.3 | 20% | 1 MHz, 0.1 V | 0.239 | 1.1 | 1.30 |
| LPM1010MT4R7 | 4.7 | 20% | 1 MHz, 0.1 V | 0.316 | 0.9 | 1.10 |
| LPM1010MT5R6 | 5.6 | 20% | 1 MHz, 0.1 V | 0.42 | 0.83 | 0.98 |
| LPM1010MT6R8 | 6.8 | 20% | 1 MHz, 0.1 V | 0.487 | 0.80 | 0.90 |
| LPM1010MT8R2 | 8.2 | 20% | 1 MHz, 0.1 V | 0.548 | 0.71 | 0.84 |
| LPM1010MT100 | 10 | 20% | 1 MHz, 0.1 V | 0.61 | 0.68 | 0.79 |
| LPM1010MT220 | 22 | 20% | 1 MHz, 0.1 V | 1.552 | 0.40 | 0.51 |

Electrical Specifications – LPM1310

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max | IDC (A) max | SRF (MHz) min |
|--------------|--------|-----------|----------------|-------------|-------------|---------------|
| LPM1310NT1R0 | 1.0 | 30% | 1 MHz, 0.1 V | 0.078 | 1 | 100 |
| LPM1310NT1R5 | 1.5 | 30% | 1 MHz, 0.1 V | 0.068 | 1.2 | 100 |
| LPM1310MT2R2 | 2.2 | 20% | 1 MHz, 0.1 V | 0.126 | 0.79 | 64 |
| LPM1310MT3R3 | 3.3 | 20% | 1 MHz, 0.1 V | 0.180 | 0.7 | 50 |
| LPM1310MT4R7 | 4.7 | 20% | 1 MHz, 0.1 V | 0.195 | 0.65 | 43 |
| LPM1310KT100 | 10 | 10% | 1 MHz, 0.1 V | 0.420 | 0.45 | 26 |
| LPM1310KT150 | 15 | 10% | 1 MHz, 0.1 V | 0.750 | 0.3 | 22 |
| LPM1310KT220 | 22 | 10% | 1 MHz, 0.1 V | 1.000 | 0.25 | 19 |
| LPM1310KT330 | 33 | 10% | 1 MHz, 0.1 V | 1.400 | 0.2 | 17 |
| LPM1310KT470 | 47 | 10% | 1 MHz, 0.1 V | 2.200 | 0.17 | 13 |
| LPM1310KT680 | 68 | 10% | 1 MHz, 0.1 V | 3.200 | 0.13 | 9 |
| LPM1310KT101 | 100 | 10% | 1 MHz, 0.1 V | 4.500 | 0.1 | 8 |

Electrical Specifications – LPM1310-HP

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. |
|-------------------|--------|-----------|----------------|--------------|--------------|
| LPM1310MT1R0-HP | 1.0 | 20% | 1 MHz, 0.1 V | 0.5 | 0.445 |
| LPM1310MT1R2-HP | 1.2 | 20% | 1 MHz, 0.1 V | 0.6 | 0.425 |
| LPM1310 _ T1R5-HP | 1.5 | 10%, 20% | 1 MHz, 0.1 V | 0.6 | 0.4 |
| LPM1310 _ T1R8-HP | 1.8 | 10%, 20% | 1 MHz, 0.1 V | 0.7 | 0.39 |
| LPM1310 _ T2R2-HP | 2.2 | 10%, 20% | 1 MHz, 0.1 V | 0.8 | 0.37 |
| LPM1310 _ T2R7-HP | 2.7 | 10%, 20% | 1 MHz, 0.1 V | 0.9 | 0.32 |
| LPM1310 _ T3R3-HP | 3.3 | 10%, 20% | 1 MHz, 0.1 V | 1 | 0.3 |
| LPM1310 _ T3R9-HP | 3.9 | 10%, 20% | 1 MHz, 0.1 V | 1.1 | 0.29 |
| LPM1310 _ T4R7-HP | 4.7 | 10%, 20% | 1 MHz, 0.1 V | 1.2 | 0.27 |
| LPM1310 _ T5R6-HP | 5.6 | 10%, 20% | 1 MHz, 0.1 V | 1.3 | 0.25 |
| LPM1310 _ T6R8-HP | 6.8 | 10%, 20% | 1 MHz, 0.1 V | 1.5 | 0.24 |
| LPM1310 _ T8R2-HP | 8.2 | 10%, 20% | 1 MHz, 0.1 V | 1.6 | 0.225 |
| LPM1310 _ T100-HP | 10 | 5%, 10% | 1 MHz, 0.1 V | 1.8 | 0.19 |
| LPM1310 _ T120-HP | 12 | 5%, 10% | 1 MHz, 0.1 V | 2 | 0.18 |
| LPM1310 _ T150-HP | 15 | 5%, 10% | 1 MHz, 0.1 V | 2.2 | 0.17 |
| LPM1310 _ T180-HP | 18 | 5%, 10% | 1 MHz, 0.1 V | 2.5 | 0.165 |
| LPM1310 _ T220-HP | 22 | 5%, 10% | 1 MHz, 0.1 V | 2.8 | 0.15 |
| LPM1310 _ T270-HP | 27 | 5%, 10% | 1 MHz, 0.1 V | 3.1 | 0.125 |
| LPM1310 _ T330-HP | 33 | 5%, 10% | 1 MHz, 0.1 V | 3.5 | 0.115 |
| LPM1310 _ T390-HP | 39 | 5%, 10% | 1 MHz, 0.1 V | 3.9 | 0.11 |
| LPM1310 _ T470-HP | 47 | 5%, 10% | 1 MHz, 0.1 V | 4.3 | 0.1 |
| LPM1310 _ T560-HP | 56 | 5%, 10% | 1 MHz, 0.1 V | 4.9 | 0.085 |
| LPM1310 _ T680-HP | 68 | 5%, 10% | 1 MHz, 0.1 V | 5.5 | 0.08 |
| LPM1310 _ T820-HP | 82 | 5%, 10% | 1 MHz, 0.1 V | 6.2 | 0.07 |
| LPM1310 _ T101-HP | 100 | 5%, 10% | 1 MHz, 0.1 V | 7 | 0.08 |
| LPM1310 _ T121-HP | 120 | 5%, 10% | 1 MHz, 0.1 V | 8 | 0.075 |
| LPM1310 _ T151-HP | 150 | 5%, 10% | 1 MHz, 0.1 V | 9.3 | 0.07 |
| LPM1310 _ T181-HP | 180 | 5%, 10% | 1 MHz, 0.1 V | 10.2 | 0.065 |
| LPM1310 _ T221-HP | 220 | 5%, 10% | 1 MHz, 0.1 V | 11.8 | 0.065 |
| LPM1310 _ T271-HP | 270 | 5%, 10% | 1 MHz, 0.1 V | 12.5 | 0.065 |
| LPM1310 _ T331-HP | 330 | 5%, 10% | 1 MHz, 0.1 V | 15 | 0.065 |
| LPM1310 _ T391-HP | 390 | 5%, 10% | 1 MHz, 0.1 V | 22 | 0.05 |
| LPM1310 _ T471-HP | 470 | 5%, 10% | 1 KHz, 0.1 V | 25 | 0.045 |
| LPM1310 _ T561-HP | 560 | 5%, 10% | 1 KHz, 0.1 V | 28 | 0.04 |

Electrical Specifications – LPM1310(C)

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) ±20% | I sat (A) max | I rms (A) max | SRF (MHz) min |
|---------------|--------|-----------|----------------|--------------|---------------|---------------|---------------|
| LPM1310NTCR47 | 0.47 | 30% | 1 MHz, 0.1 V | 0.03 | 3.4 | 2.55 | 100 |
| LPM1310NTC1R0 | 1.0 | 30% | 1 MHz, 0.1 V | 0.045 | 2.3 | 2.05 | 100 |
| LPM1310NTC1R5 | 1.5 | 30% | 1 MHz, 0.1 V | 0.057 | 1.75 | 1.75 | 70 |
| LPM1310NTC2R2 | 2.2 | 30% | 1 MHz, 0.1 V | 0.076 | 1.55 | 1.6 | 70 |
| LPM1310NTC3R3 | 3.3 | 30% | 1 MHz, 0.1 V | 0.12 | 1.25 | 1.2 | 50 |
| LPM1310NTC4R7 | 4.7 | 30% | 1 MHz, 0.1 V | 0.18 | 1 | 1 | 40 |
| LPM1310NTC6R8 | 6.8 | 30% | 1 MHz, 0.1 V | 0.24 | 0.85 | 0.85 | 40 |
| LPM1310MTC100 | 10 | 20% | 1 MHz, 0.1 V | 0.38 | 0.75 | 0.7 | 30 |
| LPM1310MTC150 | 15 | 20% | 1 MHz, 0.1 V | 0.57 | 0.6 | 0.52 | 20 |
| LPM1310MTC220 | 22 | 20% | 1 MHz, 0.1 V | 0.81 | 0.5 | 0.45 | 20 |
| LPM1310MTC330 | 33 | 20% | 1 MHz, 0.1 V | 1.15 | 0.38 | 0.39 | 13 |
| LPM1310MTC470 | 47 | 20% | 1 MHz, 0.1 V | 1.78 | 0.33 | 0.31 | 11 |
| LPM1310MTC680 | 68 | 20% | 1 MHz, 0.1 V | 2.28 | 0.28 | 0.275 | 11 |
| LPM1310MTC101 | 100 | 20% | 1 MHz, 0.1 V | 2.7 | 0.18 | 0.25 | 8 |
| LPM1310MTC121 | 120 | 20% | 1 MHz, 0.1 V | 4.38 | 0.17 | 0.2 | 8 |

Electrical Specifications – LPM1310(C)-HP

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max | IDC (A) max |
|--------------------|--------|-----------|----------------|-------------|-------------|
| LPM1310MTC1R0-HP | 1.0 | 20% | 1 MHz, 0.1 V | 0.078 | 1 |
| LPM1310MTC2R2-HP | 2.2 | 20% | 1 MHz, 0.1 V | 0.126 | 0.79 |
| LPM1310MTC3R3-HP | 3.3 | 20% | 1 MHz, 0.1 V | 0.165 | 0.5 |
| LPM1310MTC4R7-HP | 4.7 | 20% | 1 MHz, 0.1 V | 0.195 | 0.45 |
| LPM1310MTC6R8-HP | 6.8 | 20% | 1 MHz, 0.1 V | 0.33 | 0.45 |
| LPM1310MTC100-HP | 10 | 20% | 1 MHz, 0.1 V | 0.572 | 0.3 |
| LPM1310 _ TC220-HP | 22 | 10%, 20% | 1 MHz, 0.1 V | 0.923 | 0.25 |
| LPM1310 _ TC470-HP | 47 | 10%, 20% | 1 MHz, 0.1 V | 1.69 | 0.17 |
| LPM1310 _ TC101-HP | 100 | 5%, 10% | 1 MHz, 0.1 V | 4.55 | 0.1 |
| LPM1310 _ TC151-HP | 150 | 5%, 10% | 1 MHz, 0.1 V | 9.1 | 0.08 |
| LPM1310 _ TC221-HP | 220 | 5%, 10% | 1 MHz, 0.1 V | 10.92 | 0.07 |
| LPM1310 _ TC331-HP | 330 | 5%, 10% | 1 MHz, 0.1 V | 13 | 0.06 |
| LPM1310 _ TC391-HP | 390 | 5%, 10% | 1 MHz, 0.1 V | 22.1 | 0.06 |
| LPM1310 _ TC471-HP | 470 | 5%, 10% | 1 MHz, 0.1 V | 24.7 | 0.06 |
| LPM1310 _ TC561-HP | 560 | 5%, 10% | 1 MHz, 0.1 V | 28.6 | 0.06 |

Electrical Specifications – LPM1813

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max | IDC (A) max |
|----------------|--------|-----------|----------------|-------------|-------------|
| LPM1813MT1R0 | 1.0 | 20% | 1 MHz, 0.1 V | 0.2 | 0.5 |
| LPM1813MT1R2 | 1.2 | 20% | 1 MHz, 0.1 V | 0.2 | 0.5 |
| LPM1813MT1R5 | 1.5 | 20% | 1 MHz, 0.1 V | 0.3 | 0.5 |
| LPM1813MT1R8 | 1.8 | 20% | 1 MHz, 0.1 V | 0.3 | 0.5 |
| LPM1813MT2R2 | 2.2 | 20% | 1 MHz, 0.1 V | 0.3 | 0.5 |
| LPM1813MT2R7 | 2.7 | 20% | 1 MHz, 0.1 V | 0.32 | 0.5 |
| LPM1813MT3R3 | 3.3 | 20% | 1 MHz, 0.1 V | 0.35 | 0.5 |
| LPM1813MT3R9 | 3.9 | 20% | 1 MHz, 0.1 V | 0.38 | 0.5 |
| LPM1813 _ T4R7 | 4.7 | 10%, 20% | 1 MHz, 0.1 V | 0.4 | 0.5 |
| LPM1813 _ T5R6 | 5.6 | 10%, 20% | 1 MHz, 0.1 V | 0.47 | 0.5 |
| LPM1813 _ T6R8 | 6.8 | 10%, 20% | 1 MHz, 0.1 V | 0.5 | 0.45 |
| LPM1813 _ T8R2 | 8.2 | 10%, 20% | 1 MHz, 0.1 V | 0.56 | 0.45 |
| LPM1813 _ T100 | 10 | 5%, 10% | 1 MHz, 0.1 V | 0.56 | 0.4 |
| LPM1813 _ T120 | 12 | 5%, 10% | 1 MHz, 0.1 V | 0.62 | 0.38 |
| LPM1813 _ T150 | 15 | 5%, 10% | 1 MHz, 0.1 V | 0.73 | 0.36 |
| LPM1813 _ T180 | 18 | 5%, 10% | 1 MHz, 0.1 V | 0.82 | 0.34 |
| LPM1813 _ T220 | 22 | 5%, 10% | 1 MHz, 0.1 V | 0.94 | 0.32 |
| LPM1813 _ T270 | 27 | 5%, 10% | 1 MHz, 0.1 V | 1.1 | 0.3 |
| LPM1813 _ T330 | 33 | 5%, 10% | 1 MHz, 0.1 V | 1.2 | 0.27 |
| LPM1813 _ T390 | 39 | 5%, 10% | 1 MHz, 0.1 V | 1.4 | 0.24 |
| LPM1813 _ T470 | 47 | 5%, 10% | 1 MHz, 0.1 V | 1.5 | 0.22 |
| LPM1813 _ T560 | 56 | 5%, 10% | 1 MHz, 0.1 V | 1.7 | 0.2 |
| LPM1813 _ T680 | 68 | 5%, 10% | 1 MHz, 0.1 V | 1.9 | 0.18 |
| LPM1813 _ T820 | 82 | 5%, 10% | 1 MHz, 0.1 V | 2.2 | 0.17 |
| LPM1813 _ T101 | 100 | 5%, 10% | 1 MHz, 0.1 V | 2.5 | 0.16 |
| LPM1813 _ T121 | 120 | 5%, 10% | 1 MHz, 0.1 V | 3 | 0.15 |
| LPM1813 _ T151 | 150 | 5%, 10% | 1 MHz, 0.1 V | 3.7 | 0.13 |
| LPM1813 _ T181 | 180 | 5%, 10% | 1 MHz, 0.1 V | 4.5 | 0.12 |
| LPM1813 _ T221 | 220 | 5%, 10% | 1 MHz, 0.1 V | 5.4 | 0.11 |
| LPM1813 _ T271 | 270 | 5%, 10% | 1 MHz, 0.1 V | 6.8 | 0.1 |
| LPM1813 _ T331 | 330 | 5%, 10% | 1 MHz, 0.1 V | 8.2 | 0.095 |
| LPM1813 _ T391 | 390 | 5%, 10% | 1 MHz, 0.1 V | 9.7 | 0.09 |
| LPM1813 _ T471 | 470 | 5%, 10% | 1 KHz, 0.1 V | 11.8 | 0.08 |
| LPM1813 _ T561 | 560 | 5%, 10% | 1 KHz, 0.1 V | 14.5 | 0.07 |

Electrical Specifications – LPM1813 (cont.)

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max | IDC (A) max |
|----------------|--------|-----------|----------------|-------------|-------------|
| LPM1813 _ T681 | 680 | 5%, 10% | 1 KHz, 0.1 V | 17 | 0.065 |
| LPM1813 _ T821 | 820 | 5%, 10% | 1 KHz, 0.1 V | 20.5 | 0.06 |
| LPM1813 _ T102 | 1000 | 5%, 10% | 1 KHz, 0.1 V | 25 | 0.05 |
| LPM1813 _ T122 | 1200 | 5%, 10% | 1 KHz, 0.1 V | 30 | 0.045 |
| LPM1813 _ T152 | 1500 | 5%, 10% | 1 KHz, 0.1 V | 37 | 0.04 |
| LPM1813 _ T182 | 1800 | 5%, 10% | 1 KHz, 0.1 V | 45 | 0.035 |
| LPM1813 _ T222 | 2200 | 5%, 10% | 1 KHz, 0.1 V | 50 | 0.03 |

Electrical Specifications – LPM1813(C)

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max | IDC (A) max |
|-----------------|--------|-----------|----------------|-------------|-------------|
| LPM1813MTC1R0 | 1.0 | 20% | 1 MHz, 0.1 V | 0.08 | 1.08 |
| LPM1813MTC1R5 | 1.5 | 20% | 1 MHz, 0.1 V | 0.09 | 1 |
| LPM1813MTC2R2 | 2.2 | 20% | 1 MHz, 0.1 V | 0.11 | 0.9 |
| LPM1813MTC3R3 | 3.3 | 20% | 1 MHz, 0.1 V | 0.13 | 0.8 |
| LPM1813 _ TC4R7 | 4.7 | 10%, 20% | 1 MHz, 0.1 V | 0.15 | 0.75 |
| LPM1813 _ TC6R8 | 6.8 | 10%, 20% | 1 MHz, 0.1 V | 0.2 | 0.72 |
| LPM1813 _ TC100 | 10 | 5%, 10% | 1 MHz, 0.1 V | 0.24 | 0.65 |
| LPM1813 _ TC150 | 15 | 5%, 10% | 1 MHz, 0.1 V | 0.32 | 0.57 |
| LPM1813 _ TC220 | 22 | 5%, 10% | 1 MHz, 0.1 V | 0.6 | 0.42 |
| LPM1813 _ TC330 | 33 | 5%, 10% | 1 MHz, 0.1 V | 1 | 0.31 |
| LPM1813 _ TC470 | 47 | 5%, 10% | 1 MHz, 0.1 V | 1.1 | 0.28 |
| LPM1813 _ TC680 | 68 | 5%, 10% | 1 MHz, 0.1 V | 1.7 | 0.22 |
| LPM1813 _ TC101 | 100 | 5%, 10% | 1 MHz, 0.1 V | 2.2 | 0.19 |
| LPM1813 _ TC151 | 150 | 5%, 10% | 1 MHz, 0.1 V | 3.5 | 0.13 |
| LPM1813 _ TC221 | 220 | 5%, 10% | 1 MHz, 0.1 V | 4 | 0.11 |
| LPM1813 _ TC331 | 330 | 5%, 10% | 1 MHz, 0.1 V | 6.8 | 0.1 |
| LPM1813 _ TC471 | 470 | 5%, 10% | 1 KHz, 0.1 V | 8.5 | 0.09 |

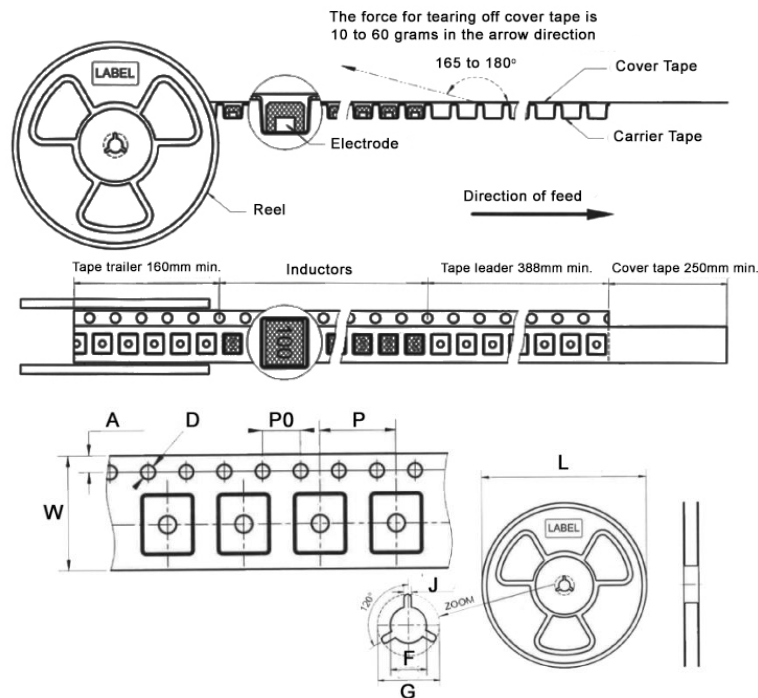
Electrical Specifications – LPM2220(C)

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max | IDC (A) max |
|-----------------|--------|-----------|----------------|-------------|-------------|
| LPM2220MTCR12 | 0.12 | 20% | 1 MHz, 0.1 V | 0.0098 | 6 |
| LPM2220MTCR27 | 0.27 | 20% | 1 MHz, 0.1 V | 0.014 | 5.3 |
| LPM2220MTCR47 | 0.47 | 20% | 1 MHz, 0.1 V | 0.0182 | 4.8 |
| LPM2220MTC1R0 | 1.0 | 20% | 1 MHz, 0.1 V | 0.027 | 4 |
| LPM2220MTC1R5 | 1.5 | 20% | 1 MHz, 0.1 V | 0.031 | 3.7 |
| LPM2220MTC2R2 | 2.2 | 20% | 1 MHz, 0.1 V | 0.041 | 3.2 |
| LPM2220MTC3R3 | 3.3 | 20% | 1 MHz, 0.1 V | 0.05 | 2.9 |
| LPM2220MTC4R7 | 4.7 | 20% | 1 MHz, 0.1 V | 0.574 | 2.7 |
| LPM2220MTC6R8 | 6.8 | 20% | 1 MHz, 0.1 V | 0.104 | 2 |
| LPM2220 _ TC100 | 10 | 10%, 20% | 1 MHz, 0.1 V | 0.13 | 1.7 |
| LPM2220 _ TC150 | 15 | 10%, 20% | 1 MHz, 0.1 V | 0.21 | 1.4 |
| LPM2220 _ TC220 | 22 | 10%, 20% | 1 MHz, 0.1 V | 0.266 | 1.2 |
| LPM2220 _ TC270 | 27 | 10%, 20% | 1 MHz, 0.1 V | 0.3 | 1 |
| LPM2220 _ TC330 | 33 | 10%, 20% | 1 MHz, 0.1 V | 0.448 | 0.9 |
| LPM2220 _ TC470 | 47 | 10%, 20% | 1 MHz, 0.1 V | 0.56 | 0.8 |
| LPM2220 _ TC680 | 68 | 10%, 20% | 1 MHz, 0.1 V | 0.938 | 0.64 |
| LPM2220 _ TC101 | 100 | 10%, 20% | 100 KHz, 0.1 V | 1.204 | 0.56 |
| LPM2220 _ TC151 | 150 | 10%, 20% | 100 KHz, 0.1 V | 2.66 | 0.42 |
| LPM2220 _ TC221 | 220 | 10%, 20% | 100 KHz, 0.1 V | 3.36 | 0.32 |
| LPM2220 _ TC331 | 330 | 10%, 20% | 100 KHz, 0.1 V | 6.16 | 0.27 |
| LPM2220 _ TC471 | 470 | 10%, 20% | 100 KHz, 0.1 V | 7.56 | 0.24 |

Electrical Specifications – LPM2220(C) (cont.)

| Type / Code | L (uH) | Tolerance | Test Condition | DCR (Ω) max | IDC (A) max |
|-----------------|--------|-----------|----------------|-------------|-------------|
| LPM2220 _ TC681 | 680 | 10%, 20% | 100 KHz, 0.1 V | 11.34 | 0.19 |
| LPM2220 _ TC102 | 1000 | 10%, 20% | 10 KHz, 0.1 V | 14.42 | 0.15 |
| LPM2220 _ TC222 | 2200 | 10%, 20% | 10 KHz, 0.1 V | 30.1 | 0.1 |
| LPM2220 _ TC472 | 4700 | 10%, 20% | 10 KHz, 0.1 V | 61.04 | 0.07 |
| LPM2220 _ TC103 | 10000 | 10%, 20% | 10 KHz, 0.1 V | 140 | 0.05 |

Packaging Specifications



| Type / Code | A | D | P0 | P | W | F | G | J | L | Unit |
|-------------|------------------------------|------------------------------|------------------------------|----------------|----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------------|--------------|
| LPM1008 | 0.069 ± 0.004 1.75 ± 0.10 | 0.059 ± 0.004 1.50 ± 0.10 | 0.157 ± 0.004 4.00 ± 0.10 | 0.157 4.00 | 0.315 8.00 | 0.512 ± 0.039 13.00 ± 1.00 | 0.906 ± 0.039 23.00 ± 1.00 | 0.098 ± 0.020 2.50 ± 0.50 | 12.992 ± 7.008 330.00 ± 178.00 | Inches mm |
| LPM1008(HP) | 0.069 ± 0.004 1.75 ± 0.10 | 0.059 ± 0.004 1.50 ± 0.10 | 0.157 ± 0.004 4.00 ± 0.10 | 0.157 4.00 | 0.315 8.00 | 0.512 ± 0.039 13.00 ± 1.00 | 0.906 ± 0.039 23.00 ± 1.00 | 0.098 ± 0.020 2.50 ± 0.50 | 12.992 ± 7.008 330.00 ± 178.00 | Inches mm |
| LPM1010 | 0.069 ± 0.004 1.75 ± 0.10 | 0.059 ± 0.004 1.50 ± 0.10 | 0.157 ± 0.004 4.00 ± 0.10 | 0.157 4.00 | 0.315 8.00 | 0.512 ± 0.039 13.00 ± 1.00 | 0.906 ± 0.039 23.00 ± 1.00 | 0.098 ± 0.020 2.50 ± 0.50 | 12.992 ± 7.008 330.00 ± 178.00 | Inches mm |
| LPM1310 | 0.069 ± 0.004 1.75 ± 0.10 | 0.059 ± 0.004 1.50 ± 0.10 | 0.157 ± 0.004 4.00 ± 0.10 | 0.157 4.00 | 0.315 8.00 | 0.512 ± 0.039 13.00 ± 1.00 | 0.906 ± 0.039 23.00 ± 1.00 | 0.098 ± 0.020 2.50 ± 0.50 | 12.992 ± 7.008 330.00 ± 178.00 | Inches mm |
| LPM1310(HP) | 0.069 ± 0.004 1.75 ± 0.10 | 0.059 ± 0.004 1.50 ± 0.10 | 0.157 ± 0.004 4.00 ± 0.10 | 0.315 8.00 | 0.472 12.00 | 0.512 ± 0.039 13.00 ± 1.00 | 0.906 ± 0.039 23.00 ± 1.00 | 0.098 ± 0.020 2.50 ± 0.50 | 12.992 ± 7.008 330.00 ± 178.00 | Inches mm |
| LPM1813 | 0.069 ± 0.004 1.75 ± 0.10 | 0.059 ± 0.004 1.50 ± 0.10 | 0.157 ± 0.004 4.00 ± 0.10 | 0.315 8.00 | 0.472 12.00 | 0.512 ± 0.039 13.00 ± 1.00 | 0.906 ± 0.039 23.00 ± 1.00 | 0.098 ± 0.020 2.50 ± 0.50 | 12.992 ± 7.008 330.00 ± 178.00 | Inches mm |
| LPM2220 | 0.069 ± 0.004 1.75 ± 0.10 | 0.059 ± 0.004 1.50 ± 0.10 | 0.157 ± 0.004 4.00 ± 0.10 | 0.472 12.00 | 0.630 16.00 | 0.512 ± 0.039 13.00 ± 1.00 | 0.906 ± 0.039 23.00 ± 1.00 | 0.098 ± 0.020 2.50 ± 0.50 | 12.992 ± 7.008 330.00 ± 178.00 | Inches mm |

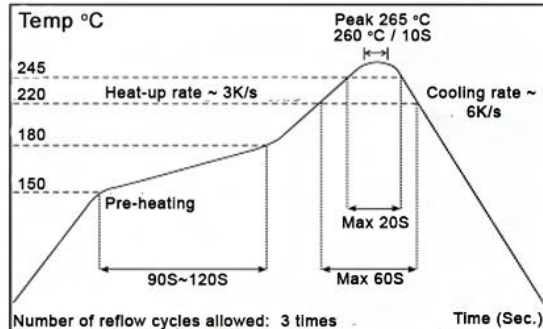
Environmental Specifications - General

| Items | Specifications |
|-----------------------------|---|
| Shelf Storage Conditions | Temperature range: 25 ± 3 °C. Humidity: < 80% relative humidity. Recommended product should be used within six months from the time of delivery. |
| Operating Temperature Range | -40 °C to +125 °C |

| Environmental Test | | |
|-------------------------------|--|--|
| Test | Test Specification | Test Condition |
| High Temperature Storage Test | No case deformation or change in appearance. $\Delta L/L \leq 10\%$ | Temperature $85 \pm 2 \text{ }^\circ\text{C}$ Time: 48 ± 2 hours Tested after 1 hour at room temperature |
| Low Temperature Storage Test | | Temperature $-25 \pm 2 \text{ }^\circ\text{C}$ Time: 48 ± 2 hours Tested after 1 hour at room temperature |
| Humidity Test | | Temperature $40 \pm 2 \text{ }^\circ\text{C}$, 90 ~ 95% relative humidity Time: 96 ± 2 hours Tested after 1 hour at room temperature |
| Thermal Shock Test | | First $-25 \text{ }^\circ\text{C}$ 30 minutes, then $25 \text{ }^\circ\text{C}$ 10 minutes, last $85 \text{ }^\circ\text{C}$ 30 minutes, as 1 cycle. Go through 5 cycles. Tested after 1 hour at room temperature |

| Mechanical Test | | |
|------------------------------|---|---|
| Test | Test Specification | Test Condition |
| Solderability Test | Terminal area must have 90% minimum solder coverage | Product with lead-free terminal: Dip pads in flux then dip in solder pot at $245 \pm 5 \text{ }^\circ\text{C}$ for 3 seconds |
| Resistance to Soldering Heat | No case deformation or change in appearance | Flux should cover the whole of the sample before heating, then be preheated for about 2 minutes over temperature of $130 \sim 150 \text{ }^\circ\text{C}$. immersing to $260 \pm 5 \text{ }^\circ\text{C}$ for 10 seconds |
| Vibration Test | No case deformation or change in appearance $\Delta L/L \leq 10\%$ | Apply frequency 10 ~ 55 Hz 1.5 mm amplitude in each of perpendicular direction for 2 hours |
| Shock Resistance | | Drop down with 981 m/s^2 (100 G) shock attitude upon a rubber block method shock testing machine for 1 time in each of three orientations. |

Reflow Chart:



RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union’s directive regarding “Restrictions on Hazardous Substances” (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

| RoHS Compliance Status | | | | | | |
|-------------------------|--|----------------------------|--------------------------------|-----------------------------------|--|---------------------------------------|
| Standard Product Series | Description | Package / Termination Type | Standard Series RoHS Compliant | Lead-Free Termination Composition | Lead-Free Mfg. Effective Date (Std Product Series) | Lead-Free Effective Date Code (YY/WW) |
| LPM | Miniature Wirewound Surface Mount Power Inductor | SMD | YES | 100% Matte Sn | Aug-05 | 05/31 |

“Conflict Metals” Commitment

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the “conflict region” of the eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

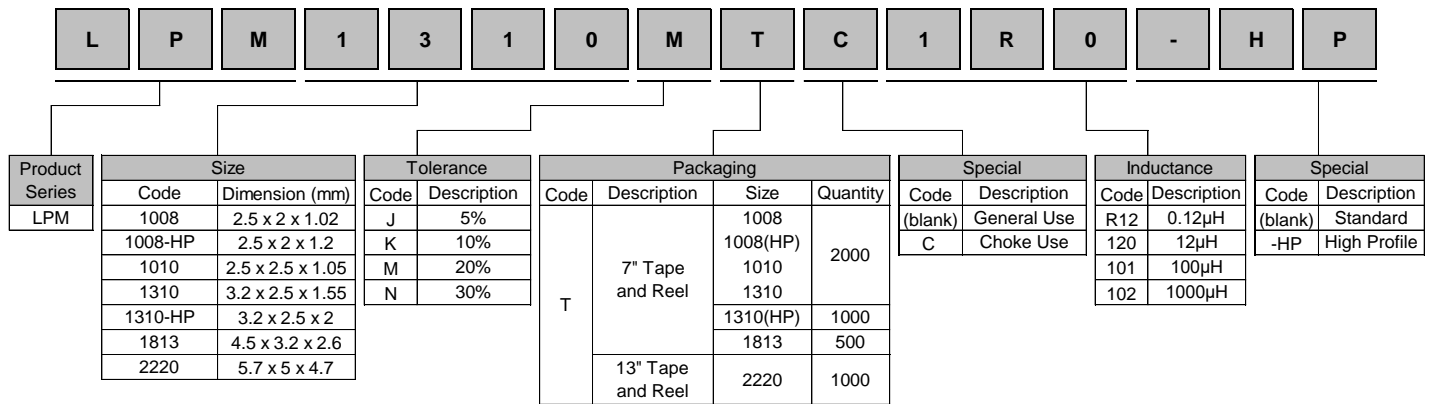
Compliance to “REACH”

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, “The Registration, Evaluation, Authorization and Restriction of Chemicals”, otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

How to Order



Legacy Part Number:

