

Wire Wound SMD Power Inductor

Features

- 1. Magnetic-resin shielded construction reduces buzz noise to ultra-low levels:
- 2. Metallization on ferrite core results in excellent shock resistance and damage-free durability;
- 3. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI);
- 4. 30% higher current rating than conventional inductors of equal size:
- 5. Take up less PCB real estate and save more power.





Applications

- 1. LED Lighting:
- 2. Mobile devices with multifunction such as adding color TV and camera:
- 3. Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4. Notebooks, desktop computers, servers, graphic cards:
- 5. Portable gaming devices, personal navigation systems, personal multimediadevices:
- 6. Automotive systems
- 7. Telecommbasestations

Lead Free PartNumbering

S CMLW 6028 100 (1) (2) (3)(4) (5) (6)

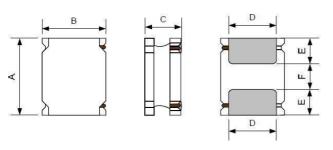
- (1) Series Type
- (2) Dimension: LXH
- (3) Material Code
- Inductance: 2R2=2.2µH;

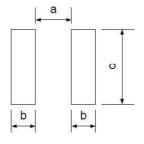
100=10μH; 101=100μH

- (5) Inductance Tolerance: M=±20%, N=±30%
- (6) Company Code
- (7) Packaging: Tape Carrier Package

Dimensions

Recommended Land Pattern





Unit:mm

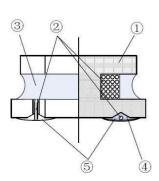
| Series | А | В | С | D | Е | F | а Тур. | b Тур. | с Тур. |
|-----------|---------|---------|---------|---------|----------|----------|--------|--------|--------|
| CMLW6028S | 6.0±0.3 | 6.0±0.3 | 2.8Max. | 4.9±0.3 | 1.55±0.3 | 2.90±0.3 | 2.8 | 1.7 | 5.7 |



Electrical Characteristics

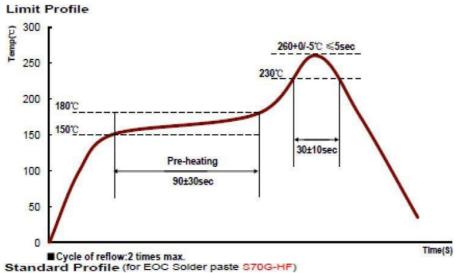
- 1) Operating temperature range (Including self-heating): -40° ~ +125° $_{\odot}$
- 2) Storage temperature range (packaging conditions): -10℃~+40℃ and RH 70% (Max.)

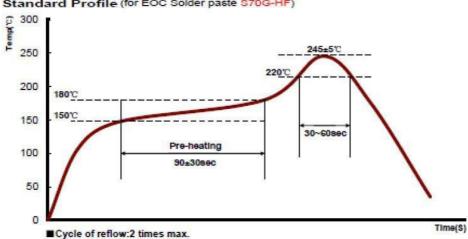
Construction and material



| Code | Part Name | Material Name | | |
|------|--------------------|--|--|--|
| 1) | Ferrite Core | Ni-Zn Ferrite | | |
| 2 | Wire | Polyurethane system enameled copper wire | | |
| 3 | Magnteic Glue | Epoxy resin and magnetic powder | | |
| | | Ag | | |
| 4 | Plating Electrodes | Ni | | |
| | | Sn | | |
| (5) | Outer Electrodes | Top surface solder coating Sn 、Ag、Cu | | |

◆ REFLOW-PROFILE





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| Specification | | | | | | | |
|------------------|--------------------|---------------|--------------------------|--------------------------|-------------|--|--|
| Dani Neuroban | Inductance | DC Resistance | Min.Self-resonant | Saturation Current(A) | Heat Rating | | |
| Part Number | @100KHz,1V (µH) | ±30% (Ω) DCR | Frequency (MHz) S.R.F | Isat | Current (A) | | |
| CMLW6028S Series | (μπ) | DOIN | J.IV.I | ารสเ | 111113 | | |
| | | 1 | | | | | |
| CMLW6028S1R0MST | 1.0±20% | 0.010 | 70 | 6.00 | 5.20 | | |
| CMLW6028S1R5MST | 1.5±20% | 0.013 | 65 | 6.00 | 4.58 | | |
| CMLW6028S2R2NST | 2.2±30% | 0.015 | 56 | 5.10 | 4.09 | | |
| CMLW6028S3R3MST | 3.3±20% | 0.025 | 41 | 3.63 | 3.48 | | |
| CMLW6028S4R7NST | 4.7±30% | 0.030 | 35 | 3.00 | 3.08 | | |
| CMLW6028S6R8MST | 6.8±20% | 0.047 | 27 | 2.85 | 2.40 | | |
| CMLW6028S8R2MST | 8.2±20% | 0.055 | 24 | 2.60 | 2.25 | | |
| CMLW6028S100MST | 10±20% | 0.072 | 23 | 2.04 | 1.95 | | |
| CMLW6028S120MST | 12±20% | 0.080 | 18 | 1.80 | 1.85 | | |
| CMLW6028S150MST | 15±20% | 0.125 | 18 | 1.75 | 1.45 | | |
| CMLW6028S180MST | 18±20% | 0.120 | 15 | 1.52 | 1.45 | | |
| CMLW6028S220MST | 22±20% | 0.140 | 14 | 1.60 | 1.40 | | |
| CMLW6028S270MST | 27±20% | 0.155 | 13 | 1.50 | 1.32 | | |
| CMLW6028S330MST | 33±20% | 0.185 | 12 | 1.35 | 1.22 | | |
| CMLW6028S390MST | 39±20% | 0.225 | 11 | 1.25 | 1.10 | | |
| CMLW6028S470MST | 47±20% | 0.245 | 9.5 | 1.15 | 1.06 | | |
| CMLW6028S620MST | 62±20% | 0.345 | 7.7 | 0.95 | 0.89 | | |
| CMLW6028S680MST | 68±20% | 0.360 | 7.7 | 0.95 | 0.86 | | |
| CMLW6028S750MST | 75±20% | 0.410 | 7.7 | 0.90 | 0.81 | | |
| CMLW6028S820MST | 82±20% | 0.445 | 7.7 | 0.90 | 0.78 | | |
| CMLW6028S101MST | 100±20% | 0.500 | 7.1 | 0.65 | 0.70 | | |

◆ Note

Rated current: Isat or Irms, whichever is smaller;

3 : Isat: DC current at which the inductance drops approximate 30% from its value without current; 4 : Irms:

DC current that causes the temperature rise ($\triangle T$ =40°C) from 20°C ambient.

◆ Standard Packing Quantity: 2000 pcs/reel

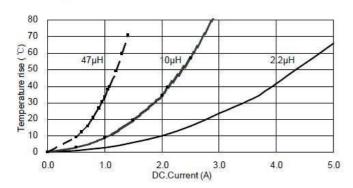
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^{1 :} All test data is referenced to 20°C ambient; 2 :

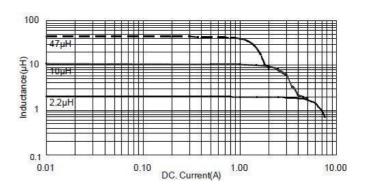


◆ TYPICAL ELECTRICAL CHARACTERISTICS CMLW6028S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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