

SMD Inductors(Coils)

For Power Line(Multilayer, Magnetic Shielded)

Conformity to RoHS Directive

MLZ Series MLZ1608

This is a multilayered inductor primarily designed for choking power lines. With one of the best resistance performance in the industry, this product delivers a significantly lower DC resistance value compared to our previous products. This reduces the loss at the power supply and contributes to power conservation.

FEATURES

- Significantly reduced Rdc.
- An inductance value of 1.0 to 10.0μH was realized using the 1608 form. This contributes to space saving.
- Automatic mounting in tape and reel package.
- The products contain no lead and also support lead-free soldering.
- It is a product conforming to RoHS directive.

APPLICATIONS

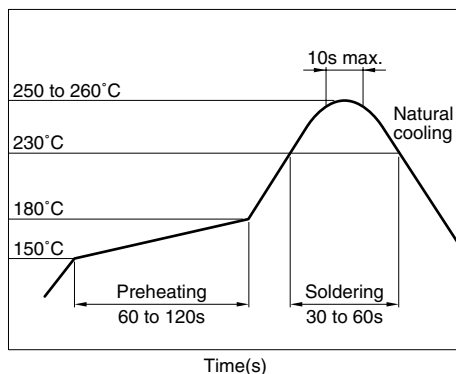
Choke coil to use for DVC, DSC, MD, power supply circuit such as various module.

SPECIFICATIONS

| | |
|-----------------------------|---------------------------------|
| Operating temperature range | -55 to +125°C |
| Storage temperature range | -55 to +125°C[Unit of products] |

RECOMMENDED SOLDERING CONDITION

REFLOW SOLDERING



PRODUCT IDENTIFICATION

| | | | | | |
|-----|------|-----|-----|-----|-----|
| MLZ | 1608 | A | 1R0 | M | T |
| (1) | (2) | (3) | (4) | (5) | (6) |

(1) Series name

(2) Dimensions L×W

| | |
|------|-----------|
| 1608 | 1.6×0.8mm |
|------|-----------|

(3) Material code

(4) Inductance value

| | |
|-----|---------|
| 1R0 | 1.0 μH |
| 100 | 10.0 μH |

(5) Inductance tolerance

| | |
|---|------|
| M | ±20% |
|---|------|

(6) Packaging style

| | |
|---|---------------|
| T | Taping [reel] |
|---|---------------|

PACKAGING STYLE AND QUANTITIES

| | |
|-----------------|------------------|
| Packaging style | Quantity |
| Taping | 4000 pieces/reel |

HANDLING AND PRECAUTIONS

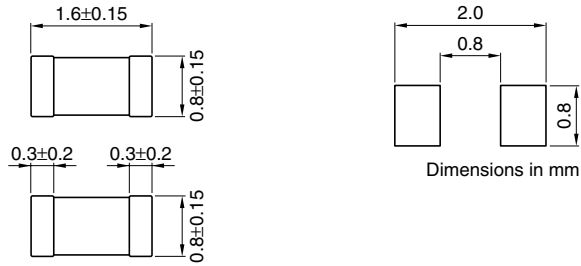
- Before soldering, be sure to preheat components.
The preheating temperature should be set so that the temperature difference between the solder temperature and product temperature does not exceed 150°C.
- After mounting components onto the printed circuit board, do not apply stress through board bending or mishandling.
- The inductance value may change due to magnetic saturation if the current exceeds the rated maximum.
- Do not expose the inductors to stray magnetic fields.
- Avoid static electricity discharge during handling.
- When hand soldering, apply the soldering iron to the printed circuit board only. Temperature of the iron tip should not exceed 350°C. Soldering time should not exceed 3 seconds.

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• Please contact our Sales office when your application are considered the following:
The device's failure or malfunction may directly endanger human life (e.g. application for automobile/aircraft/medical/nuclear power devices, etc.)

• All specifications are subject to change without notice.

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



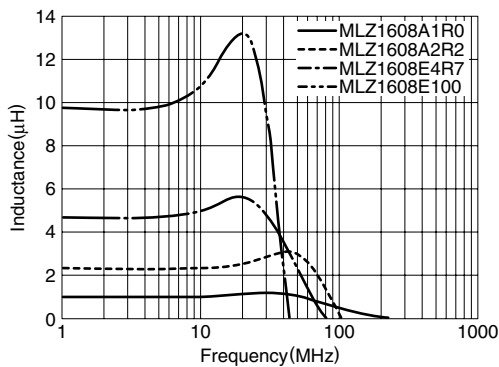
ELECTRICAL CHARACTERISTICS

| Part No. | Inductance (μH) | Inductance tolerance | Test frequency L (MHz) | Test current L (mA) | Self-resonant frequency (MHz)typ. | DC resistance (Ω)±30% | Rated current (mA) |
|---------------|-----------------|----------------------|------------------------|---------------------|-----------------------------------|-----------------------|--------------------|
| MLZ1608A1R0MT | 1.0 | ±20% | 10 | 1.0 | 120 | 0.17 | 150 |
| MLZ1608A2R2MT | 2.2 | ±20% | 10 | 1.0 | 80 | 0.30 | 100 |
| MLZ1608E4R7MT | 4.7 | ±20% | 2 | 0.1 | 50 | 0.50 | 60 |
| MLZ1608E100MT | 10.0 | ±20% | 2 | 0.1 | 30 | 0.90 | 40 |

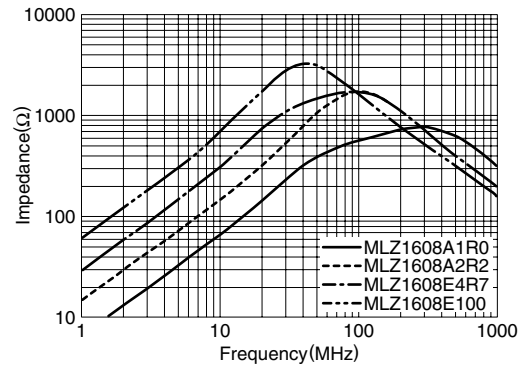
- Test equipment
Inductance: Ag-4294A+16034G

TYPICAL ELECTRICAL CHARACTERISTICS

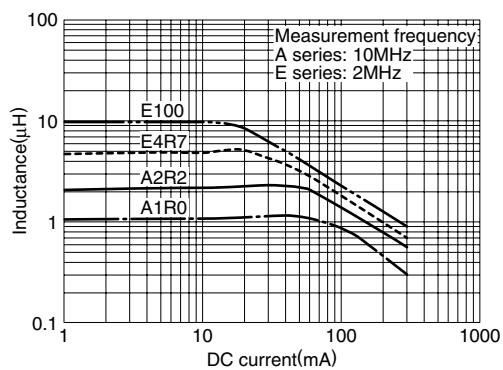
INDUCTANCE vs. FREQUENCY CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS

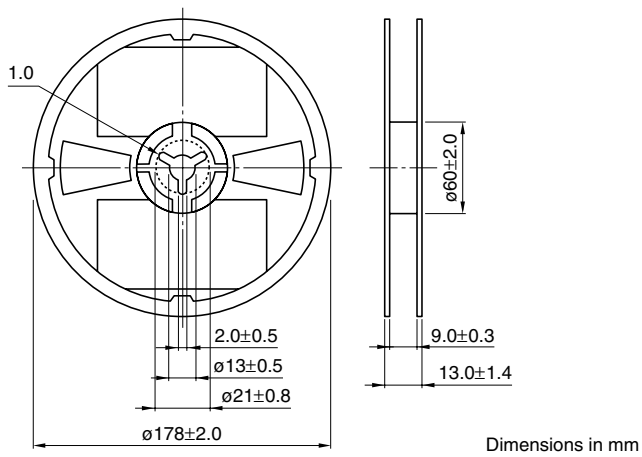


INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



PACKAGING STYLES

REEL DIMENSIONS



TAPE DIMENSIONS

