Inductors

For Power Line SMD

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 $4.7\mu H$ was realized at a thickness of 0.85mm. This contributes to space saving.
- · Automatic mounting in tape and reel package.
- The products contain no lead and also support lead-free soldering.

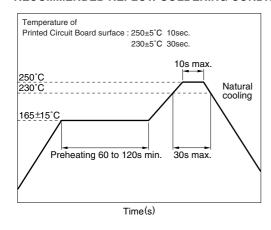
APPLICATIONS

DVC, DSC, Tuner, LCD panel, MD, HDD, etc.

SPECIFICATIONS

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

RECOMMENDED REFLOW SOLDERING CONDITIONS



MLZ Series MLZ2012 Type

PRODUCT IDENTIFICATION

 $\frac{\text{MLZ}}{(1)} \frac{2012}{(2)} \frac{\text{A}}{(3)} \frac{1\text{R0}}{(4)} \frac{\text{P}}{(5)} \frac{\text{T}}{(6)}$

- (1) Series name
- (2) Dimensions L×W

| 2012 | 2.0×1.25mm |
|------|------------|

- (3) Material code
- (4) Inductance value

| 1R0 | 1.0 μΗ | |
|-----|---------|--|
| 100 | 10.0 μΗ | |

(5) Inductance tolerance

| M | ±20% | | |
|---|------|--|--|
| P | ±25% | | |

(6) Packaging style

| Taning [real] | |
|---------------|--|
| | |
| | |
| | |

PACKAGING STYLE AND QUANTITIES

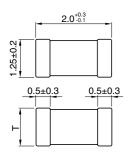
| Packaging style | Thickness | Quantity |
|-----------------|-----------|------------------|
| Taping | 0.85mm | 4000 pieces/reel |
| | 1.25mm | 2000 pieces/reel |

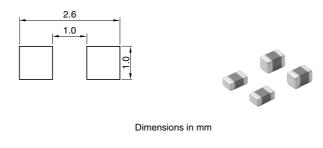
Inductors

MLZ Series MLZ2012 Type

For Power Line SMD

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN





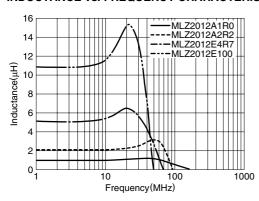
ELECTRICAL CHARACTERISTICS

| Part No. | Inductance (µH) | Inductance tolerance | Thickness (mm) | Self-resonant frequency (MHz)typ. | DC resistance $(\Omega)\pm30\%$ | Rated current (mA) |
|----------------|--------------------|-------------------------|----------------|-----------------------------------|---------------------------------|--------------------|
| MLZ2012A1R0X*T | 1.0 | ±20, ±25% | 0.85 | 160 | 0.12 | 220 |
| MLZ2012A2R2XT | 2.2 | ±20, ±25% | 0.85 | 100 | 0.20 | 160 |
| MLZ2012E4R7XT | 4.7 | ±20, ±25% | 0.85 | 70 | 0.30 | 80 |
| MLZ2012E100XT | 10.0 | ±20, ±25% | 1.25 | 30 | 0.40 | 60 |

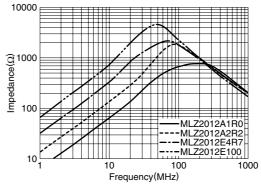
^{*} X: Please specify inductance tolerance, M(±20%) or P(±25%)

Inductance, Q: HP4291B-16192A

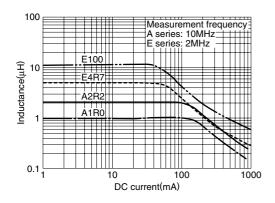
TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE vs. FREQUENCY CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS



INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



[·] Test equipment

[•] All specifications are subject to change without notice.