



THE DATASHEET OF CPL2512T100M



SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

CPL Series CPL2512

FEATURES

- It delivers low Rdc with high I_{dc}.
- It is lead-free compatible.
The product contains no lead whatsoever.
It is able to withstand high temperature reflows (260°C during the peak) used in lead-free soldering.

APPLICATIONS

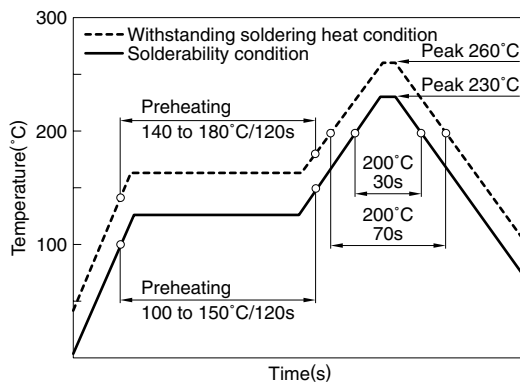
Portable audio visual devices (DSCs, DVCs, etc.)
Mobile communication devices (cellular phones, etc.)
Information devices (PCs, etc.)

SPECIFICATIONS

| | |
|-----------------------------|--|
| Operating temperature range | -40 to +105°C [Including self-temperature rise] |
| Storage temperature range | -40 to +105°C |

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



PRODUCT IDENTIFICATION

| | | | | |
|-----|------|-----|-----|-----|
| CPL | 2512 | T | 100 | M |
| (1) | (2) | (3) | (4) | (5) |

(1) Series name

(2) Dimensions

| | |
|------|---------------|
| 2512 | 2.5×1.5×1.2mm |
|------|---------------|

(3) Packaging style

| | |
|---|--------|
| T | Taping |
|---|--------|

(4) Inductance

| | |
|-----|------|
| 1R0 | 1μH |
| 100 | 10μH |

(5) Inductance tolerance

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

PACKAGING STYLE AND QUANTITIES

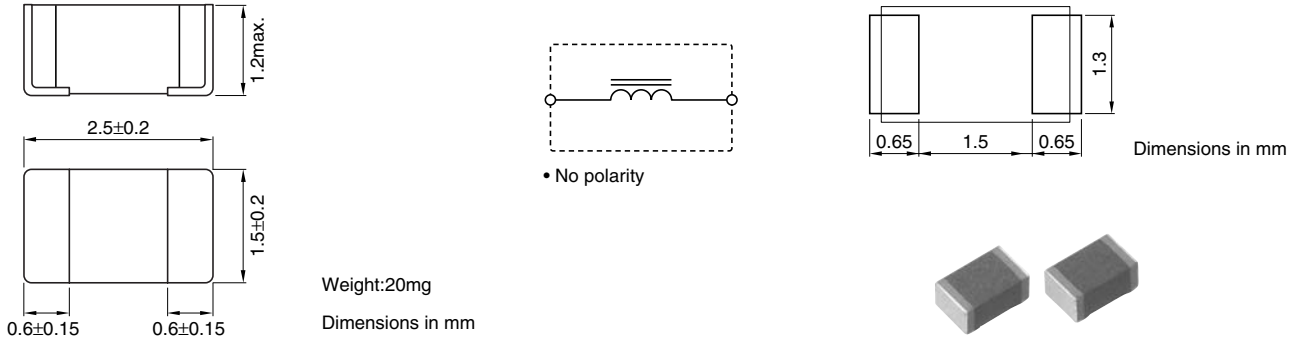
| | |
|-----------------|------------------|
| Packaging style | Quantity |
| Taping | 2000 pieces/reel |

• 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/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

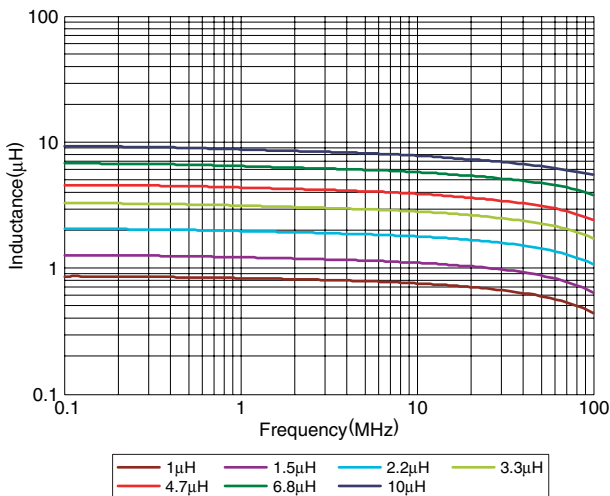
| Inductance (μH) | Inductance tolerance (%) | DC resistance (Ω)±30% | Rated current*1 (mA)max. | Rated current*2 (mA)max. | Part No. |
|-----------------|--------------------------|-----------------------|--------------------------|--------------------------|--------------|
| 1 | ±20 | 0.09 | 1500 | 1300 | CPL2512T1R0M |
| 1.5 | ±20 | 0.12 | 1200 | 1000 | CPL2512T1R5M |
| 2.2 | ±20 | 0.135 | 900 | 900 | CPL2512T2R2M |
| 3.3 | ±20 | 0.24 | 730 | 730 | CPL2512T3R3M |
| 4.7 | ±20 | 0.36 | 650 | 650 | CPL2512T4R7M |
| 6.8 | ±20 | 0.7 | 450 | 450 | CPL2512T6R8M |
| 10 | ±20 | 0.9 | 300 | 300 | CPL2512T100M |

*1 Rated current based on inductance variation: Current when inductance decreases by 30% of the initial value due to direct current superimposed characteristics

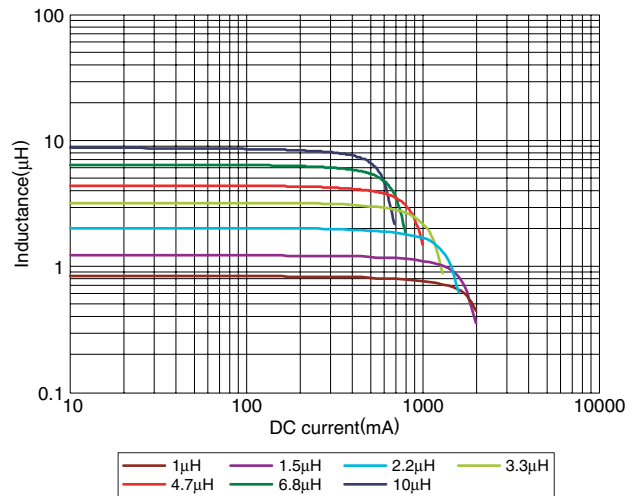
*2 Rated current based on increasing product temperature: Current when temperature of the product reaches +40°C

TYPICAL ELECTRICAL CHARACTERISTICS

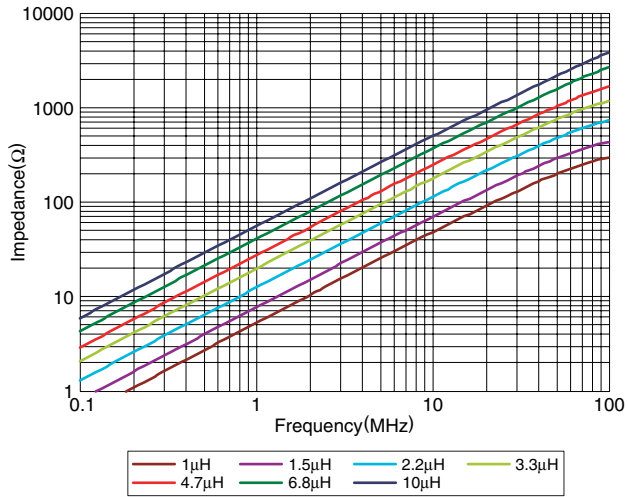
INDUCTANCE vs. FREQUENCY CHARACTERISTICS



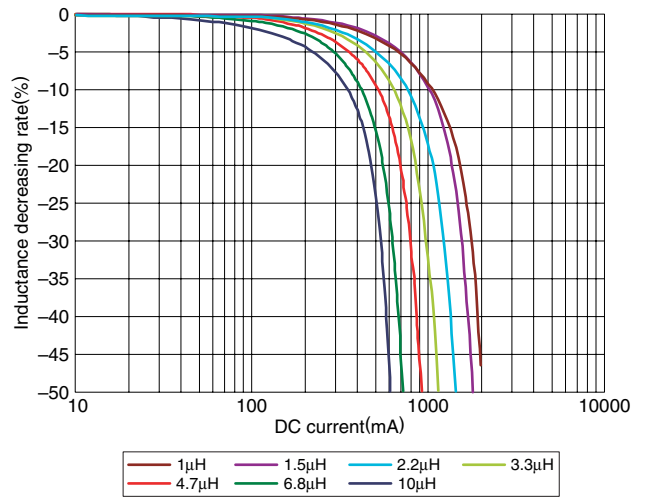
INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS





DC SUPERPOSITION vs. INDUCTANCE DECREASING RATE



Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View CPL2512T100M on WIN SOURCE](#)
-  [TDK Corporation Information](#)

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-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management