

# SMD Inductors(Coils)

## For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

CPL Series CPL2512

**FEATURES**

- It delivers low Rdc with high Idc.
- 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**

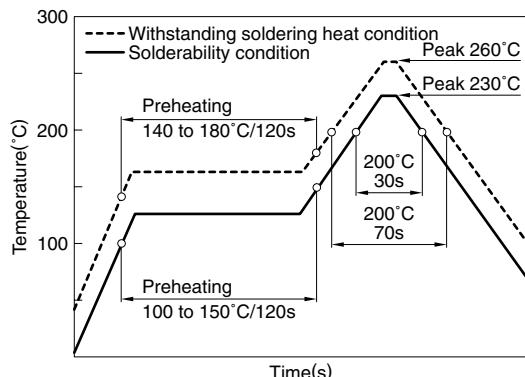
Portable audio visual devices (DSCs, DVCs, etc.)

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

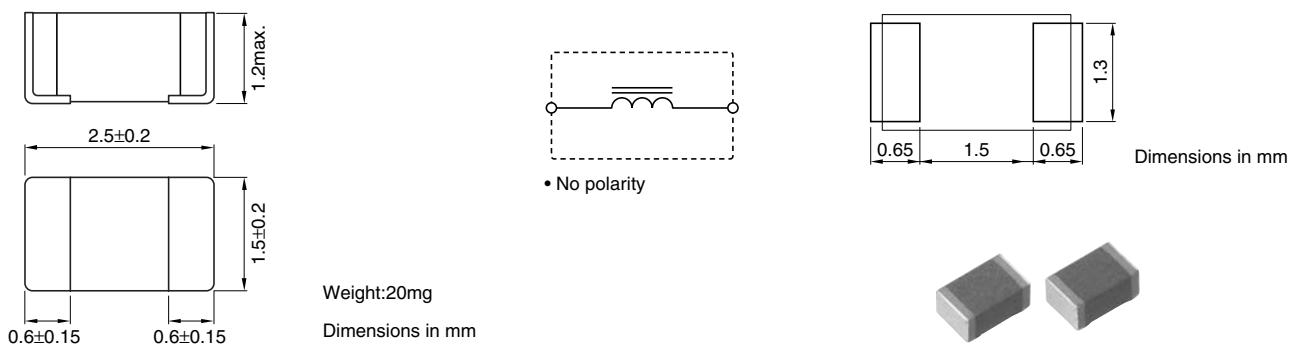
M ±20%

**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

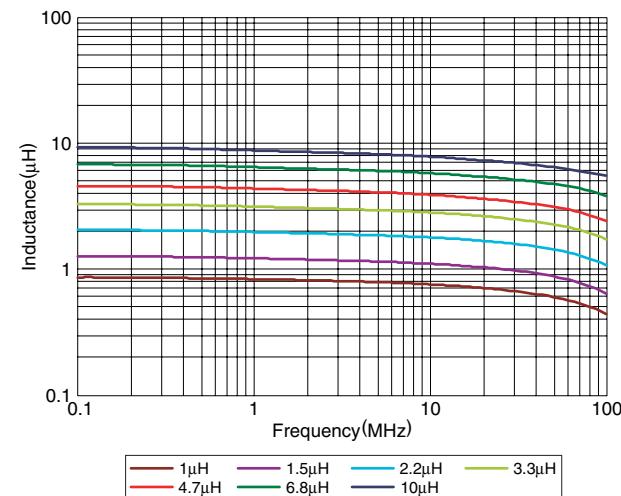
Inductance ( $\mu$ H)	Inductance tolerance (%)	DC resistance ( $\Omega$ ) $\pm$ 30%	Rated current <sup>*1</sup> (mA)max.	Rated current <sup>*2</sup> (mA)max.	Part No.
1	$\pm$ 20	0.09	1500	1300	CPL2512T1R0M
1.5	$\pm$ 20	0.12	1200	1000	CPL2512T1R5M
2.2	$\pm$ 20	0.135	900	900	CPL2512T2R2M
3.3	$\pm$ 20	0.24	730	730	CPL2512T3R3M
4.7	$\pm$ 20	0.36	650	650	CPL2512T4R7M
6.8	$\pm$ 20	0.7	450	450	CPL2512T6R8M
10	$\pm$ 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

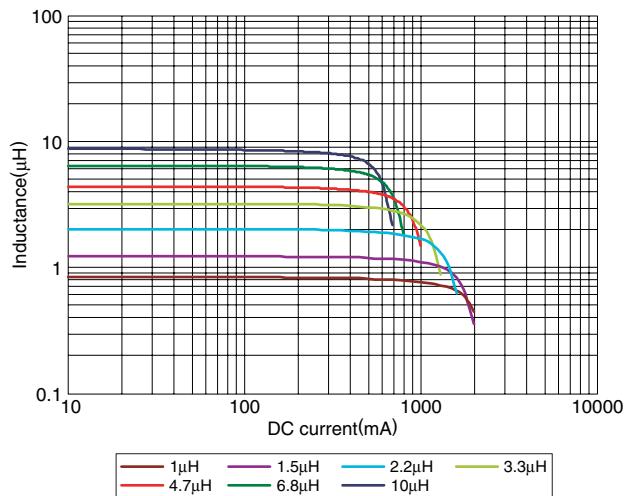
\*2 Rated current based on increasing product temperature: Current when temperature of the product reaches +40°C

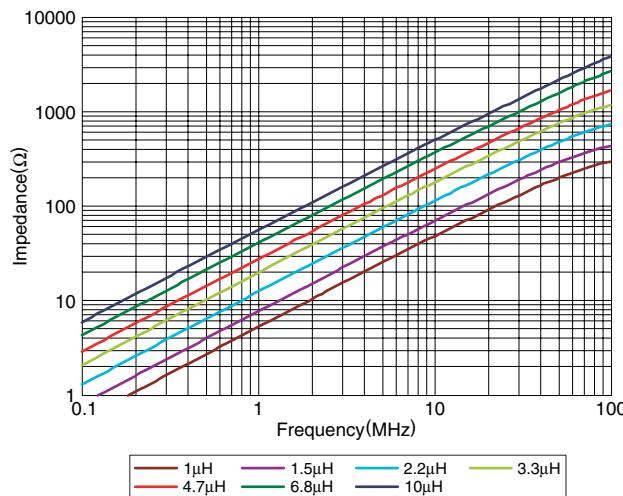
## TYPICAL ELECTRICAL CHARACTERISTICS

## INDUCTANCE vs. FREQUENCY CHARACTERISTICS



## INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS



**TYPICAL ELECTRICAL CHARACTERISTICS**
**IMPEDANCE vs. FREQUENCY CHARACTERISTICS**

**DC SUPERPOSITION vs. INDUCTANCE DECREASING RATE**
