

# 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.

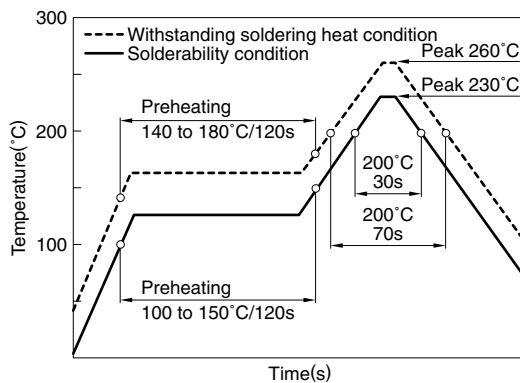
### APPLICATIONS

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
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(3) Packaging style

T	Taping
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(4) Inductance

1R0	1μH
100	10μH

(5) Inductance tolerance

M	±20%
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### PACKAGING STYLE AND QUANTITIES

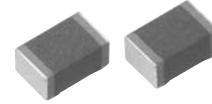
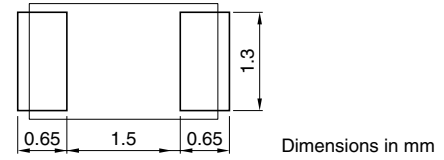
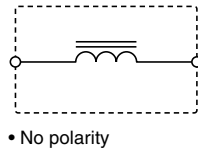
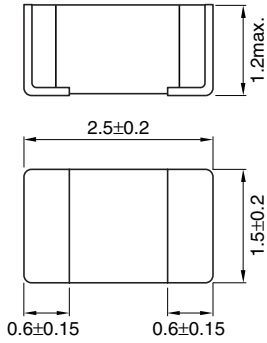
Packaging style	Quantity
Taping	2000 pieces/reel

• 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



Weight: 20mg  
Dimensions in mm

## ELECTRICAL CHARACTERISTICS

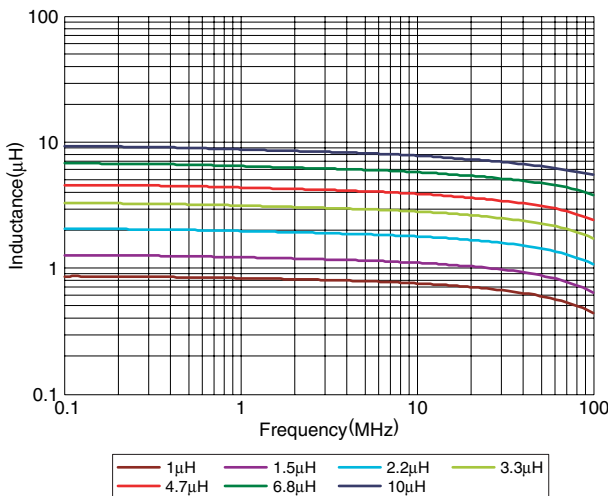
Inductance ( $\mu\text{H}$ )	Inductance tolerance (%)	DC resistance ( $\Omega$ ) $\pm 30\%$	Rated current*1 (mA)max.	Rated current*2 (mA)max.	Part No.
1	$\pm 20$	0.09	1500	1300	CPL2512T1R0M
1.5	$\pm 20$	0.12	1200	1000	CPL2512T1R5M
2.2	$\pm 20$	0.135	900	900	CPL2512T2R2M
3.3	$\pm 20$	0.24	730	730	CPL2512T3R3M
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

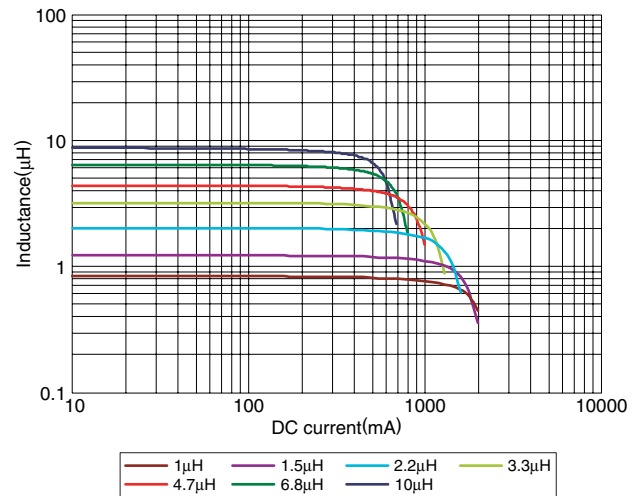
\*2 Rated current based on increasing product temperature: Current when temperature of the product reaches  $+40^\circ\text{C}$

## TYPICAL ELECTRICAL CHARACTERISTICS

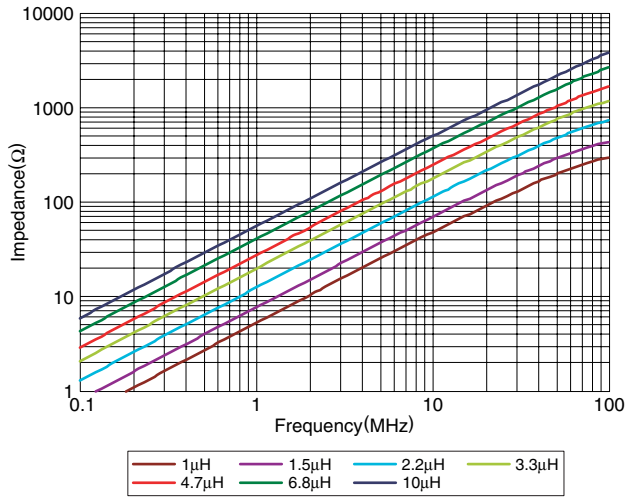
### INDUCTANCE vs. FREQUENCY CHARACTERISTICS



### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS



### TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



### DC SUPERPOSITION vs. INDUCTANCE DECREASING RATE

