TDK

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

Conformity to RoHS Directive

CPL Series CPL2508

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

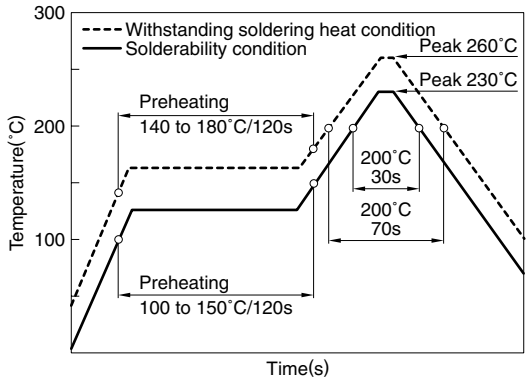
Portable audio visual devices (DSCs, DVCs, etc.)
Mobile communication devices (cellular phones, etc.)
Information devices (PCs, etc.)

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	2508	T	100	M
(1)	(2)	(3)	(4)	(5)

(1) Series name

(2) Dimensions

2508	2.5×1.5×0.8mm

(3) Packaging style

T	Taping

(4) Inductance

1R0	1µH
100	10µH

(5) Inductance tolerance

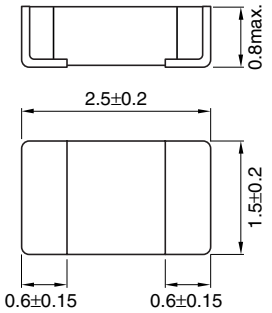
M	±20%

PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	2000 pieces/reel

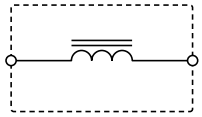
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- Please contact our Sales office when your application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

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN

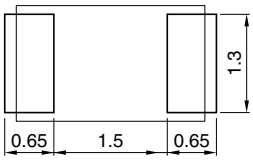


Weight:13mg

Dimensions in mm



• No polarity



Dimensions in mm

ELECTRICAL CHARACTERISTICS

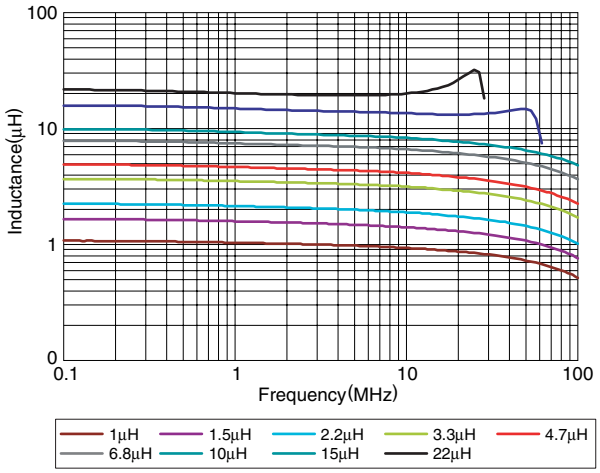
Inductance (μH)	Inductance tolerance (%)	DC resistance (Ω)±30%	Rated current*1 (mA)max.	Rated current*2 (mA)max.	Part No.
1	±20	0.110	950	950	CPL2508T1R0M
1.5	±20	0.140	800	800	CPL2508T1R5M
2.2	±20	0.165	700	700	CPL2508T2R2M
3.3	±20	0.360	500	500	CPL2508T3R3M
4.7	±20	0.550	430	430	CPL2508T4R7M
6.8	±20	1.000	300	300	CPL2508T6R8M
10.0	±20	1.500	270	270	CPL2508T100M
15.0	±20	2.000	230	230	CPL2508T150M
22.0	±20	2.400	180	180	CPL2508T220M

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

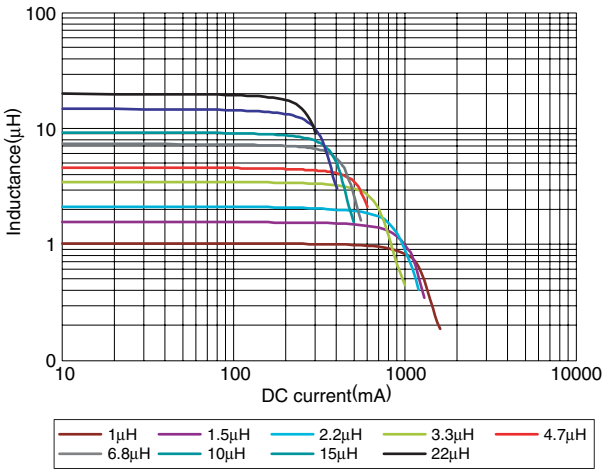
*2 Rated current based on increasing product temperature: Current when temperature of the product reaches +40°C

TYPICAL ELECTRICAL CHARACTERISTICS

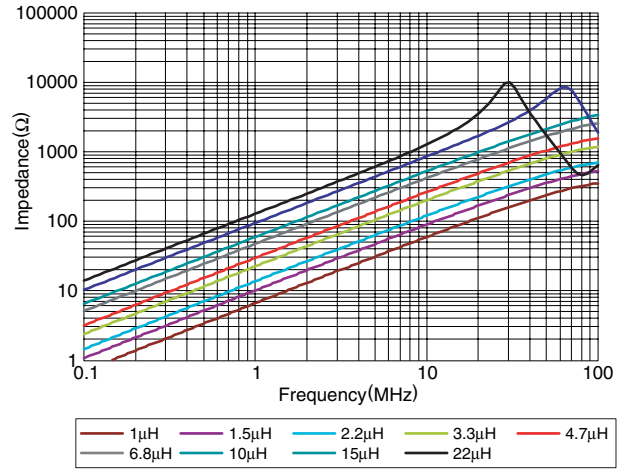
INDUCTANCE vs. FREQUENCY CHARACTERISTICS



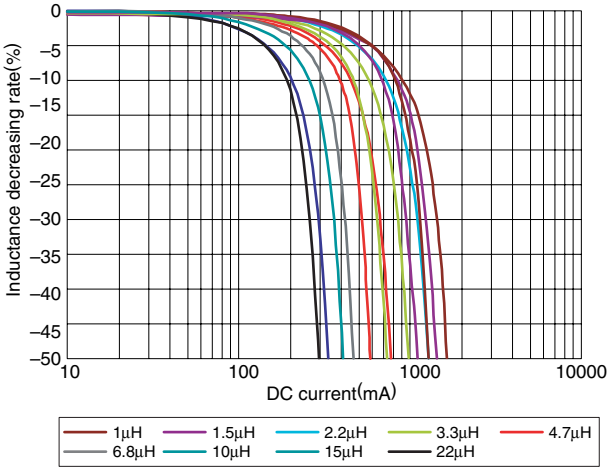
INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS



DC SUPERPOSITION vs. INDUCTANCE DECREASING RATE



• All specifications are subject to change without notice.