### **Inductors**

# For Power Line SMD

## NLFC Series NLFC3225 Type

#### **FEATURES**

- The product has good heat durability that withstands lead-free compatible reflow soldering conditions.
- Lead-free material is used for the plating on the terminal.
- The NLFC series features magnetic shielding and is recommended for power supply line applications.
- They are available in ranging from 2016 to 4532 types.

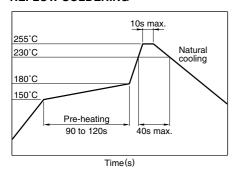
#### **APPLICATIONS**

Personal computers, hard disk drives, and other electronic equipment.

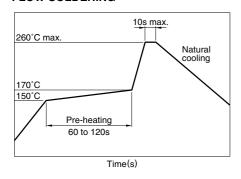
#### **SPECIFICATIONS**

Operating temperature range	e -40 to +85°C
Storage temperature range	-40 to +85°C [Unit of products]

# RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERING



#### FLOW SOLDERING



#### **IRON SOLDERING**

Tip temperature	300 to 350°C
TIP telliperature	300 10 330 0
Heating time	3 sec/soldering
Soldering rod specifications	Output: 30W Tip diameter: 1mm

- Based on the above conditions, use a maximum product temperature of 260°C and a maximum accumulated heating time of 10 seconds as a guideline.
- · Please contact us for details.

#### **FLUX AND CLEANING**

Rosin-based flux is recommended.

#### **Cleaning Conditions**

Solvent	Please select the solvent of this product avoiding a strong acid and a strong alkali, and considering the environments.
Time	2min max.

#### PRODUCT IDENTIFICATION

NLFC	322522	T-	2R2	M	-PF
(1)	(2)	(3)	(4)	(5)	(6)

(1)Series name

#### (2)Dimensions L×W×T

322522	3.2×2.5×2.2mm

#### (3)Packaging style

Т	Taping (reel)

#### (4)Inductance value

1R0	1μΗ	
220	22uH	

#### (5)Inductance tolerance

K	±10%
M	±20%

#### (6) Lead-free compatible product

duct
duct

#### **PACKAGING STYLE AND QUANTITIES**

Packaging style	Quantity
Taping	2000 pieces/reel

# **Inductors**

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For Power Line SMD

#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



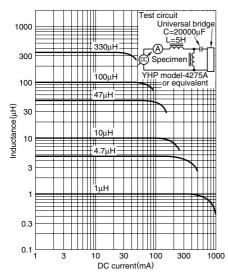


#### **ELECTRICAL CHARACTERISTICS**

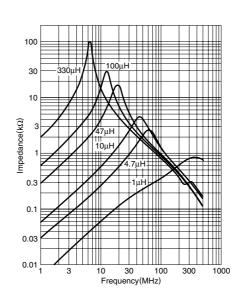
la di cata a a a	la di eta a a	_	Test	Self-resonant	DC	Rated current (mA)* max.		
Inductance	Inductance	Q	frequency	frequency	resistance	Based on inductance	Based on	Part No.
(μH)	tolerance	ref.	L, Q (MHz)	(MHz)min.	(Ω)±30%	change	temperature rise	
1	±20%	5	7.96	100	0.06	500	1250	NLFC322522T-1R0M-PF
1.5	±20%	5	7.96	80	0.08	400	1100	NLFC322522T-1R5M-PF
2.2	±20%	5	7.96	68	0.09	340	1000	NLFC322522T-2R2M-PF
3.3	±20%	5	7.96	54	0.11	270	900	NLFC322522T-3R3M-PF
4.7	±20%	5	7.96	46	0.13	240	850	NLFC322522T-4R7M-PF
6.8	±20%	5	7.96	38	0.17	195	750	NLFC322522T-6R8M-PF
10	±10%	10	2.52	30	0.26	165	650	NLFC322522T-100K-PF
15	±10%	10	2.52	26	0.32	145	550	NLFC322522T-150K-PF
22	±10%	10	2.52	21	0.5	115	450	NLFC322522T-220K-PF
33	±10%	10	2.52	17	0.75	95	360	NLFC322522T-330K-PF
47	±10%	10	2.52	14	0.95	85	320	NLFC322522T-470K-PF
68	±10%	10	2.52	12	1.5	70	260	NLFC322522T-680K-PF
100	±10%	10	0.796	10	2.5	55	200	NLFC322522T-101K-PF
150	±10%	10	0.796	8	3.2	45	170	NLFC322522T-151K-PF
220	±10%	10	0.796	7	5.4	35	130	NLFC322522T-221K-PF
330	±10%	10	0.796	5	7	30	110	NLFC322522T-331K-PF
470	±10%	10	0.796	4	16	25	79	NLFC322522T-471K-PF
680	±10%	10	0.796	3	20	20	70	NLFC322522T-681K-PF
1000	±10%	10	0.252	2.4	24	15	63	NLFC322522T-102K-PF

<sup>\*</sup> Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

# TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



#### IMPEDANCE vs. FREQUENCY CHARACTERISTICS





Test equipment
L, Q: YHP4194A IMPEDANCE ANALYZER+YHP16085A+YHP16093B+TF-1, or equivalent
SRF: HP8753C NETWORK ANALYZER (Zin=Zout=50Ω), or equivalent
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent