

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

Conformity to RoHS Directive

## NLFC Series NLFC2520

### FEATURES

- The NLFC series features magnetic shielding and is recommended for power supply line applications.
- 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 product uses metal terminals, which realize excellent connection reliability.
- From 1μH to 100μH, all of the products are available in the E-6 series.
- This product conforms to the standards that are slated to be introduced under the RoHS Directive.

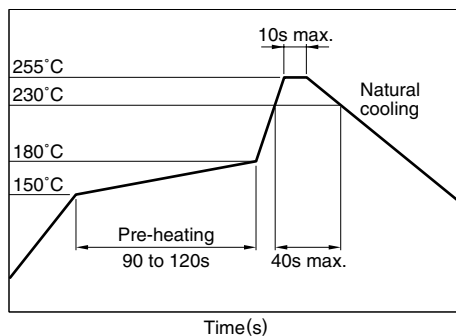
### APPLICATIONS

- Audio-visual equipment including TVs, VCRs and digital cameras.
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Electronic equipment used in onboard automobile equipment including car audio and ECU systems.
- Other electronic equipment including HDDs and ODDs.

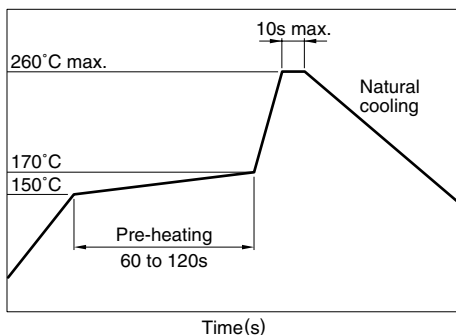
### SPECIFICATIONS

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

### RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERING



### FLOW SOLDERING



### IRON SOLDERING

Tip temperature	300 to 350°C
Heating time	3 seconds/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.

### PRODUCT IDENTIFICATION

NLFC	252018	T-	2R2	M	-	PF
(1)	(2)	(3)	(4)	(5)	(6)	

(1)Series name

(2)Dimensions

252018	2.5×2.0×1.8mm (L×W×T)
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(3)Packaging style

T	Taping (reel)
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(4)Inductance value

1R0	1μH
220	22μH

(5)Inductance tolerance

K	±10%
M	±20%

(6) Lead-free compatible product

PF	Lead-free compatible product
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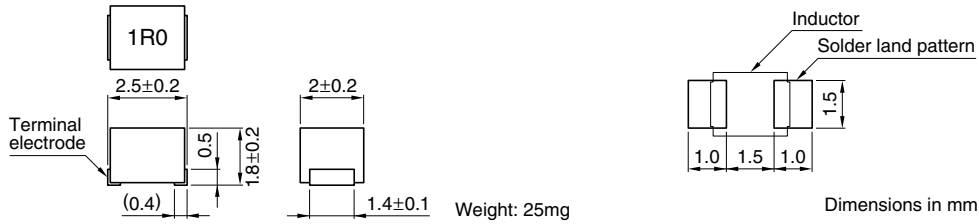
### PACKAGING STYLE AND QUANTITIES

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.

• All specifications are subject to change without notice.

## SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



## ELECTRICAL CHARACTERISTICS

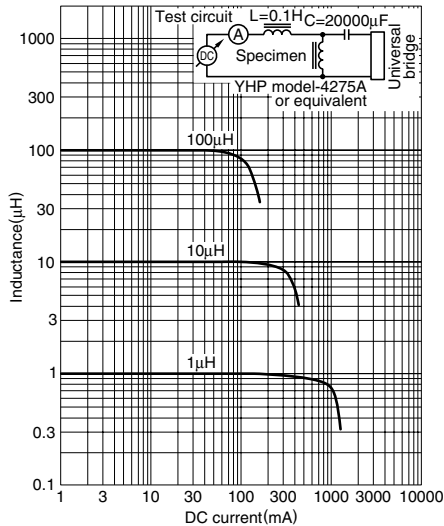
Inductance (μH)	Inductance tolerance	Q ref.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current* (mA) max.	Part No.
1	±20%	10	7.96	100	0.13	455	NLFC252018T-1R0M-PF
1.5	±20%	10	7.96	80	0.17	350	NLFC252018T-1R5M-PF
2.2	±20%	10	7.96	70	0.2	315	NLFC252018T-2R2M-PF
3.3	±20%	10	7.96	55	0.25	280	NLFC252018T-3R3M-PF
4.7	±20%	10	7.96	45	0.3	210	NLFC252018T-4R7M-PF
6.8	±20%	10	7.96	38	0.35	175	NLFC252018T-6R8M-PF
10	±10%	20	2.52	32	0.5	155	NLFC252018T-100K-PF
15	±10%	20	2.52	28	0.75	130	NLFC252018T-150K-PF
22	±10%	20	2.52	16	1.6	105	NLFC252018T-220K-PF
33	±10%	20	2.52	14	2.1	85	NLFC252018T-330K-PF
47	±10%	20	2.52	11	2.6	60	NLFC252018T-470K-PF
68	±10%	20	2.52	10	3.3	50	NLFC252018T-680K-PF
100	±10%	20	0.796	8	5.5	40	NLFC252018T-101K-PF

\* 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.

- Test equipment L, Q: YHP4194A IMPEDANCE ANALYZER+YHP16085A+YHP16093B+TF-1  
SRF: HP8753C NETWORK ANALYZER  
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE vs. FREQUENCY CHARACTERISTICS



### IMPEDANCE vs. FREQUENCY CHARACTERISTICS

