

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

Conformity to RoHS Directive

## NLFV Series NLFV25

### 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 product uses metal terminals, which realize excellent connection reliability.
- From 1 $\mu$ H to 100 $\mu$ H, all of the products are available in the E-6 series.
- This product is in compliance with the RoHS Directive. Other products with specifications that do not include exemption regulations are also available.

### APPLICATIONS

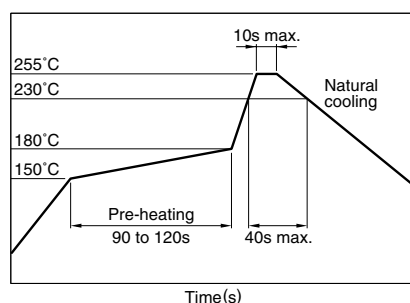
- Audio-visual equipment including TVs, VCRs and digital cameras.
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Electronic equipment used in onboard automobile equipment including car audio and ECU systems.
- Other electronic equipment including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

### SPECIFICATIONS

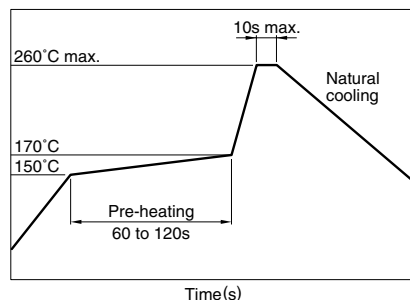
Operating temperature range	-40 to +105°C [Including self-temperature rise]
Storage temperature range	-40 to +105°C

### RECOMMENDED SOLDERING CONDITIONS

#### REFLOW SOLDERING



#### FLOW SOLDERING



- 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.

### 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

NLFV	25	T-	2R2	M	-PF
(1)	(2)	(3)	(4)	(5)	(6)

(1) Series name

(2) Dimensions

25	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	1 $\mu$ H
100	10 $\mu$ H
101	100 $\mu$ H

(5) Inductance tolerance

K	±10%
M	±20%

(6) Lead-free compatible product

PF	Conformity to RoHS directive, exemption regulations apply
EF	Conformity to RoHS directive

### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	2000 pieces/reel

## 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)±20%	Rated current*1 (mA)max.	Part No.
1	±20%	5	7.96	100	0.07	455	NLFV25T-1R0M-□*2
1.5	±20%	5	7.96	80	0.09	350	NLFV25T-1R5M-□
2.2	±20%	5	7.96	70	0.1	315	NLFV25T-2R2M-□
3.3	±20%	5	7.96	55	0.2	280	NLFV25T-3R3M-□
4.7	±20%	5	7.96	45	0.24	210	NLFV25T-4R7M-□
6.8	±20%	5	7.96	38	0.29	175	NLFV25T-6R8M-□
10	±10%	10	2.52	32	0.36	155	NLFV25T-100K-□
15	±10%	10	2.52	28	0.75	130	NLFV25T-150K-□
22	±10%	10	2.52	16	1	105	NLFV25T-220K-□
33	±10%	10	2.52	14	1.4	85	NLFV25T-330K-□
47	±10%	10	2.52	11	1.7	60	NLFV25T-470K-□
68	±10%	10	2.52	10	3.3	50	NLFV25T-680K-□
100	±10%	10	0.796	8	4	40	NLFV25T-101K-□

\*1 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.

\*2 □: Please specify lead-free compatible product, PF (Conformity to RoHS directive, exemption regulations apply) or EF (Conformity to RoHS directive)

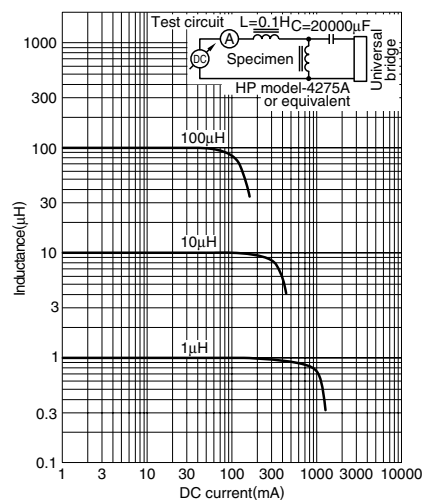
• Test equipment L, Q: HP4194A IMPEDANCE ANALYZER(16085A+16093B+TDK TF-1)

SRF: HP8753C NETWORK ANALYZER

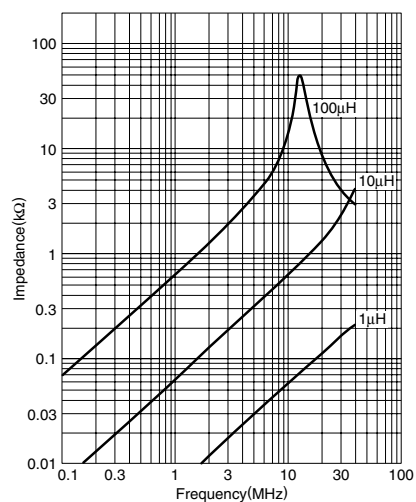
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



### IMPEDANCE vs. FREQUENCY CHARACTERISTICS



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