

Inductors for Standard Circuits

Wound/STD • magnetic shielded

NLFV/NLFC series

Type:	NLFV25	2520[1008 inch]*
	NLFV32	3225[1210 inch]
	NLFC453232	4532[1812 inch]

* Dimensions Code JIS[EIA]

Issue date: September 2011

- All specifications are subject to change without notice.
 - 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.
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Inductors for Standard Circuits

Wound/STD • 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 μ H to 100 μ 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

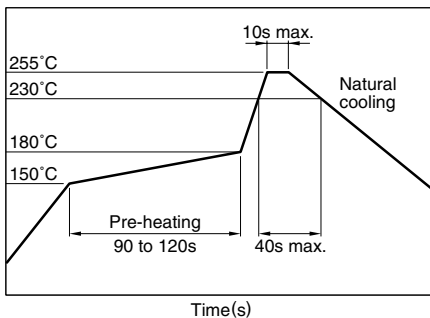
- Audio-visual equipment including TVs, VCRs and digital cameras.
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Electronic equipment used in onboard automobile equipment including car audio and ECU systems.
- Other electronic equipment including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

SPECIFICATIONS

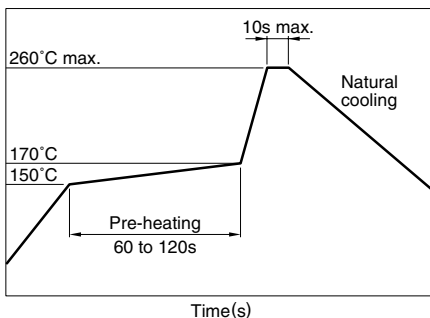
Operating temperature range	-40 to +105°C [Including self-temperature rise]
Storage temperature range	-40 to +105°C

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERING



FLOW SOLDERING



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)

(3) Packaging style

T Taping (reel)

(4) Inductance value

1R0	1 μ H
100	10 μ H
101	100 μ 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

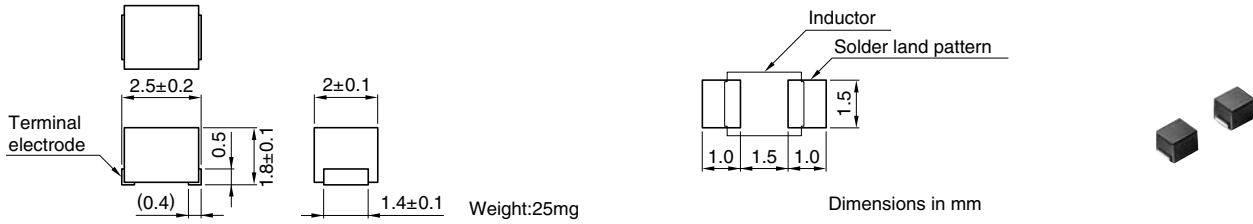
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	2000 pieces/reel

• 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)±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-□

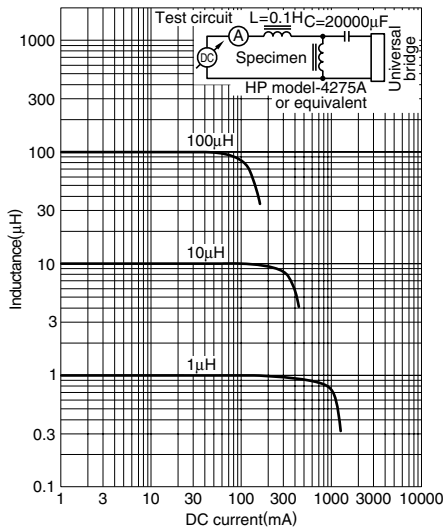
*1 Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

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

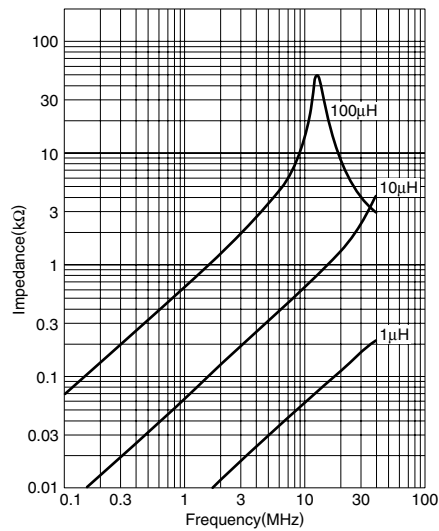
- Test equipment L, Q: HP4194A IMPEDANCE ANALYZER(16085A+16093B+TDK TF-1)
SRF: HP8753C NETWORK ANALYZER
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS



Inductors for Standard Circuits

Wound/STD • Magnetic Shielded

Conformity to RoHS Directive

NLFV Series NLFV32

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 μ H to 1000 μ 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

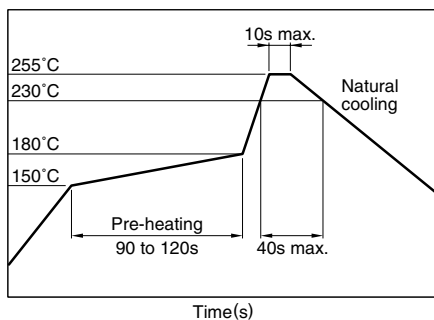
- Audio-visual equipment including TVs, VCRs and digital cameras.
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Electronic equipment used in onboard automobile equipment including car audio and car navigation systems.
- Other electronic equipment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

SPECIFICATIONS

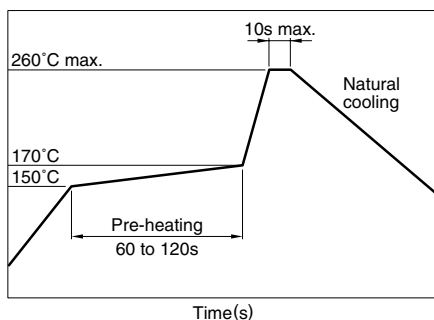
Operating temperature range	-40 to +105°C [Including self-temperature rise]
Storage temperature range	-40 to +105°C

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	32	T	2R2	M	-EF
(1)	(2)	(3)	(4)	(5)	(6)

(1) Series name

(2) Dimensions

32 3.2×2.5×2.2mm (L×W×T)

(3) Packaging style

T Taping (reel)

(4) Inductance value

1R0	1 μ H
100	10 μ H
101	100 μ H

(5) Inductance tolerance

K	±10%
M	±20%

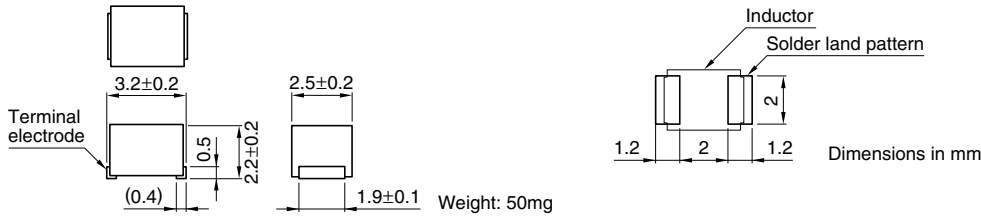
(6) Lead-free compatible product

EF Conformity to RoHS directive

PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	2000 pieces/reel

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



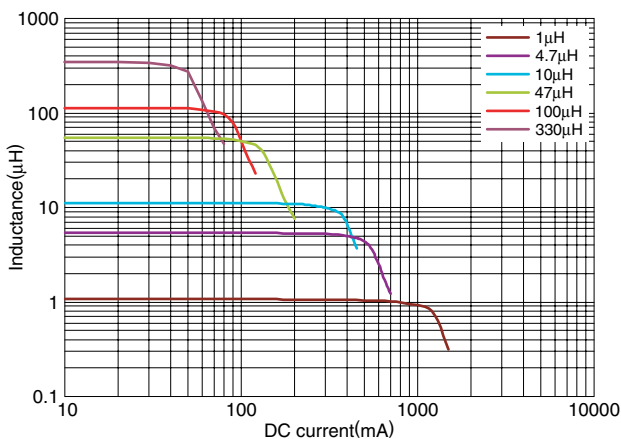
ELECTRICAL CHARACTERISTICS

Inductance (μH)	Inductance tolerance	Q ref.	Test frequency L,Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±20%	Rated current* (mA)max.	Part No.
1	±20%	5	7.96	100	0.06	750	NLFV32T-1R0M-EF
1.5	±20%	5	7.96	80	0.07	600	NLFV32T-1R5M-EF
2.2	±20%	5	7.96	68	0.09	500	NLFV32T-2R2M-EF
3.3	±20%	5	7.96	54	0.11	420	NLFV32T-3R3M-EF
4.7	±20%	5	7.96	46	0.13	360	NLFV32T-4R7M-EF
6.8	±20%	5	7.96	38	0.17	260	NLFV32T-6R8M-EF
10	±10%	10	2.52	30	0.20	250	NLFV32T-100K-EF
15	±10%	10	2.52	26	0.30	140	NLFV32T-150K-EF
22	±10%	10	2.52	21	0.40	120	NLFV32T-220K-EF
33	±10%	10	2.52	17	0.65	95	NLFV32T-330K-EF
47	±10%	10	2.52	14	0.85	90	NLFV32T-470K-EF
68	±10%	10	2.52	12	1.3	70	NLFV32T-680K-EF
100	±10%	25	0.796	10	2.2	55	NLFV32T-101K-EF
150	±10%	25	0.796	8	2.9	50	NLFV32T-151K-EF
220	±10%	25	0.796	7	5.1	40	NLFV32T-221K-EF
330	±10%	25	0.796	5	6.8	35	NLFV32T-331K-EF
470	±10%	25	0.796	4	14.5	30	NLFV32T-471K-EF
680	±10%	25	0.796	3	18.5	25	NLFV32T-681K-EF
1000	±10%	25	0.252	2.4	22.5	20	NLFV32T-102K-EF

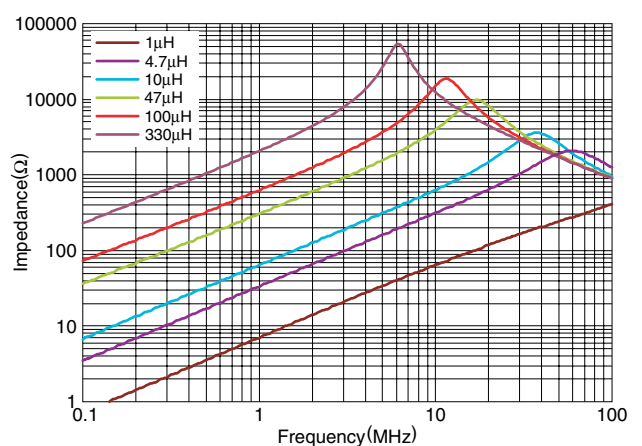
- * Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.
- Test equipment L, Q: HP4194A IMPEDANCE ANALYZER(16085A+16093B+TDK TF-1) or equivalent
 SRF: HP8753C NETWORK ANALYZER or equivalent
 Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER or equivalent

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS



• All specifications are subject to change without notice.

Inductors for Standard Circuits Wound/STD • Magnetic Shielded

Conformity to RoHS Directive

NLFC Series NLFC453232

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 1 μ H to 330 μ H, all of the products are available in the E-6 series.
- It is a product conforming to RoHS directive.

APPLICATIONS

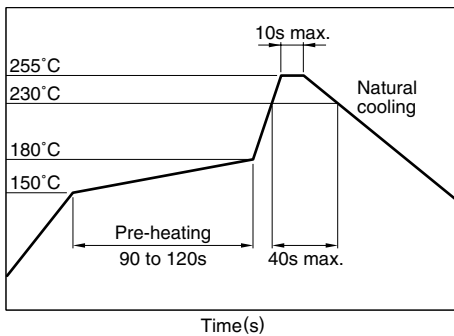
- Electronic equipment used in communication infrastructures including xDSL and mobile base stations.
- Audio-visual equipment including TVs and VCRs.
- Other electronic equipment including HDDs and ODDs.

SPECIFICATIONS

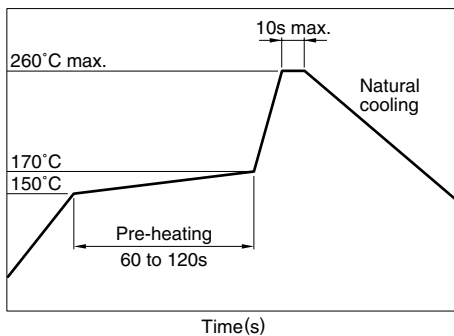
Operating temperature range	-40 to +105°C [Including self-temperature rise]
Storage temperature range	-40 to +105°C

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	453232	T-	2R2	M	-	PF
(1)	(2)	(3)	(4)	(5)	(6)	

(1) Series name

(2) Dimensions

453232	4.5×3.2×3.2mm (L×W×T)
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(3) Packaging style

T	Taping (reel)
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(4) Inductance value

1R0	1 μ H
100	10 μ H
101	100 μ H

(5) Inductance tolerance

K	±10%
M	±20%

(6) Lead-free compatible product

PF	Lead-free compatible product
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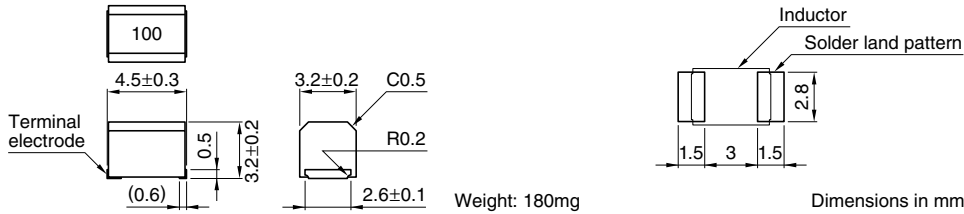
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	500 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

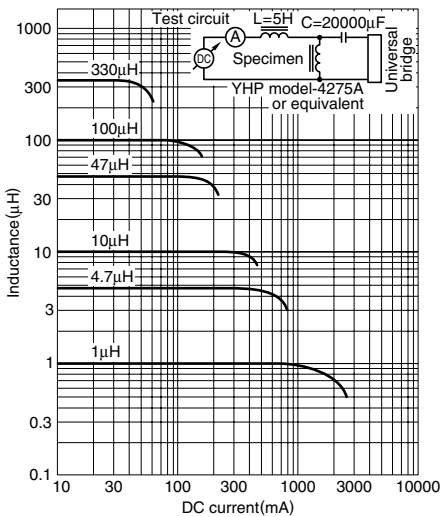
Inductance (μH)	Inductance tolerance	Q ref.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)min.	DC resistance (Ω)±30%	Rated current* (mA)max.	Part No.
1	±20%	10	7.96	200	0.05	800	NLFC453232T-1R0M-PF
1.5	±20%	10	7.96	130	0.06	700	NLFC453232T-1R5M-PF
2.2	±20%	10	7.96	80	0.07	600	NLFC453232T-2R2M-PF
3.3	±20%	10	7.96	45	0.09	460	NLFC453232T-3R3M-PF
4.7	±20%	10	7.96	35	0.1	400	NLFC453232T-4R7M-PF
6.8	±20%	10	7.96	28	0.14	300	NLFC453232T-6R8M-PF
10	±10%	10	2.52	22	0.21	250	NLFC453232T-100K-PF
15	±10%	10	2.52	20	0.3	200	NLFC453232T-150K-PF
22	±10%	10	2.52	18	0.46	170	NLFC453232T-220K-PF
33	±10%	10	2.52	14	0.63	140	NLFC453232T-330K-PF
47	±10%	10	2.52	11.5	0.85	120	NLFC453232T-470K-PF
68	±10%	10	2.52	10	1.2	100	NLFC453232T-680K-PF
100	±10%	10	0.796	8	1.7	90	NLFC453232T-101K-PF
150	±10%	10	0.796	7	2.3	65	NLFC453232T-151K-PF
220	±10%	10	0.796	5.5	3.8	55	NLFC453232T-221K-PF
330	±10%	10	0.796	4	6	45	NLFC453232T-331K-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, or equivalent
SRF: HP8753C NETWORK ANALYZER (Z_{in}=Z_{out}=50Ω), or equivalent
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS

