

NLCV25T-4R7M-EFD Datasheet

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DiGi Electronics Part Number	NLCV25T-4R7M-EFD-DG
Manufacturer	TDK Corporation
Manufacturer Product Number	NLCV25T-4R7M-EFD
Description	FIXED IND 4.7UH 285MA 1.040HM SM
Detailed Description	4.7 μH Unshielded Drum Core, Wirewound Inducto r 285 mA 1.040hm Max 1008 (2520 Metric)

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
NLCV25T-4R7M-EFD	TDK Corporation
Series:	Product Status:
NLCV-EFD	Active
Туре:	Material - Core:
Drum Core, Wirewound	Ferrite
Inductance:	Tolerance:
4.7 μΗ	±20%
Current Rating (Amps):	Current - Saturation (Isat):
285 mA	
Shielding:	DC Resistance (DCR):
Unshielded	1.040hm Max
Q @ Freq:	Frequency - Self Resonant:
20 @ 7.96MHz	43MHz
Ratings:	Operating Temperature:
AEC-Q200	-40°C ~ 105°C
Inductance Frequency - Test:	Mounting Type:
7.96 MHz	Surface Mount
Package / Case:	Supplier Device Package:
1008 (2520 Metric)	1008 (2520 Metric)
Size / Dimension:	Height - Seated (Max):
0.098" L x 0.079" W (2.50mm x 2.00mm)	0.075" (1.90mm)

Environmental & Export classification

ļ	RoHS Status:
1	ROHS3 Compliant
ļ	REACH Status:
1	REACH Unaffected
I	HTSUS:
8	8504.50.8000

Moisture Sensitivity Level (MSL):
1 (Unlimited)
ECCN:
EAR99

Inductors for decoupling circuits Wound ferrite NLCV-EFD series (for automotive)



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NLCV25-EFD type

AEC-Q200

FEATURES

O Resin mold type wound inductor for decoupling circuits.

 \bigcirc Operating temperature range: -40 to +105°C (including self-temperature rise)

O Compliant with AEC-Q200

APPLICATION

Vehicle accessories (car navigation systems, car audio, ETC, other)
Application guides: <u>Car Infotainment</u>

PART NUMBER CONSTRUCTION



CHARACTERISTICS SPECIFICATION TABLE

L		Q	L, Q measuring frequency	DC resistance	Rated current	Part No.
(µH)	Tolerance	ref.	(MHz)	(Ω) ±30%	(mA)max.	
1	±20%	20	7.96	0.34	475	NLCV25T-1R0M-EFD
1.5	±20%	20	7.96	0.42	435	NLCV25T-1R5M-EFD
2.2	±20%	20	7.96	0.5	390	NLCV25T-2R2M-EFD
3.3	±20%	20	7.96	0.65	340	NLCV25T-3R3M-EFD
4.7	±20%	20	7.96	0.8	285	NLCV25T-4R7M-EFD
6.8	±20%	20	7.96	1	275	NLCV25T-6R8M-EFD
10	±10%	30	2.52	1.69	210	NLCV25T-100K-EFD
15	±10%	30	2.52	2.2	175	NLCV25T-150K-EFD
22	±10%	30	2.52	2.8	160	NLCV25T-220K-EFD
33	±10%	30	2.52	4.2	120	NLCV25T-330K-EFD

Measurement equipment

Measurement item	Product No.	Manufacturer
L, Q	4294A+16093B	Keysight Technologies
DC resistance	AX-114N	ADEX
* Equivalent measuren	pont oquinmont may be used	

* Equivalent measurement equipment may be used.



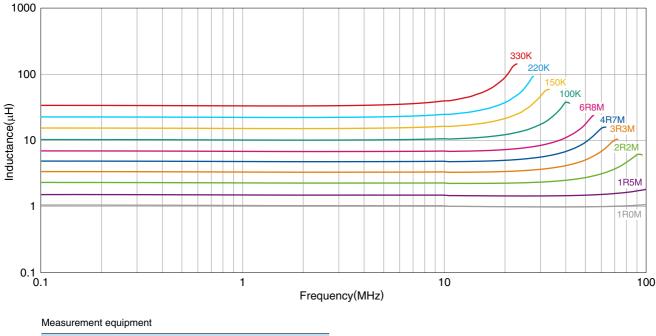
A Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. (1/5) Please note that the contents may change without any prior notice due to reasons such as upgrading.

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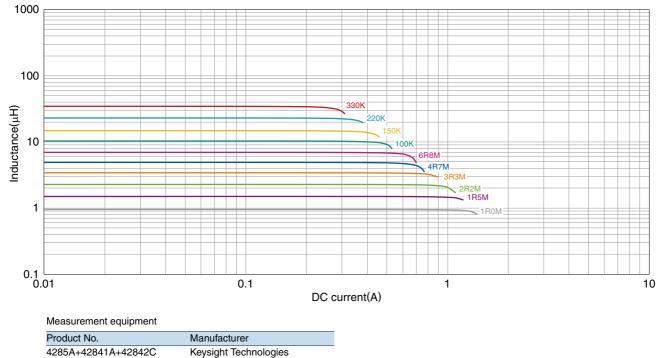
NLCV25-EFD type

L FREQUENCY CHARACTERISTICS



Product No.	Manufacturer
4294A	Keysight Technologies
* Equivalent measurement equivalent	uipment may be used.

■ INDUCTANCE VS. DC BIAS CHARACTERISTICS

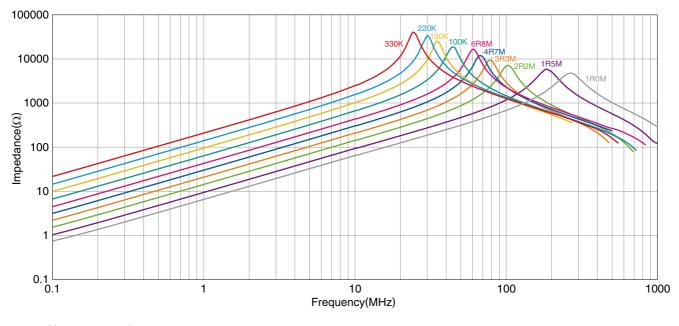


* Equivalent measurement equipment may be used.

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NLCV25-EFD type

■ IMPEDANCE VS. FREQUENCY CHARACTERISTICS



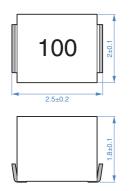
Measurement equipment

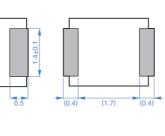
Product No.	Manufacturer
4294A	Keysight Technologies
* Equivalent measurement equ	uipment may be used.

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NLCV25-EFD type

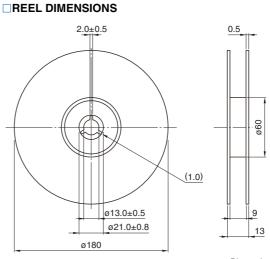
SHAPE & DIMENSIONS





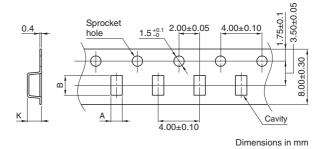
Dimensions in mm

PACKAGING STYLE



Dimensions in mm

TAPE DIMENSIONS



Туре	Α	В	K
NLCV25-EFD	2.3	2.7	2

PACKAGE QUANTITY

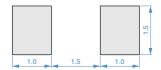
Package quantity	2000 pcs/reel
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TEMPERATURE RANGE, INDIVIDUAL WEIGHT

	Operating temperature range*	Storage temperature range**	Individual weight
	–40 to +105 °C	–40 to +105 °C	25 mg
*	Operating temperature ran	ge includes self-temperature	rise.

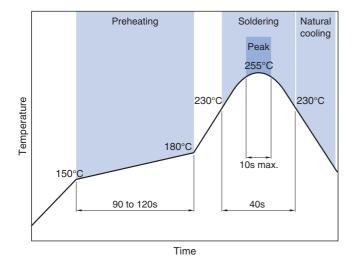
** The storage temperature range is for after the assembly.

RECOMMENDED LAND PATTERN



Dimensions in mm

RECOMMENDED REFLOW PROFILE



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(4/5)
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REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products.

▲ REMINDERS ○ The storage period is less than 6 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% RH or less). If the storage period elapses, the soldering of the terminal electrodes may deteriorate. O Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.). Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C. O Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur. O When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions. Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design. Carefully lay out the coil for the circuit board design of the non-magnetic shield type. A malfunction may occur due to magnetic interference. ○ Use a wrist band to discharge static electricity in your body through the grounding wire. O Do not expose the products to magnets or magnetic fields. O Do not use for a purpose outside of the contents regulated in the delivery specifications. O The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition. The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us. (1) Aerospace/aviation equipment (8) Public information-processing equipment (2) Transportation equipment (electric trains, ships, etc.) (9) Military equipment (3) Medical equipment (10) Electric heating apparatus, burning equipment (4) Power-generation control equipment (11) Disaster prevention/crime prevention equipment (12) Safety equipment (5) Atomic energy-related equipment (6) Seabed equipment (13) Other applications that are not considered general-purpose (7) Transportation control equipment applications When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. (5/5) Please note that the contents may change without any prior notice due to reasons such as upgrading.



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