

COMPLIANT



# Inductors/Transformers Customizable, Surface Mount Torodial, Kool-Mu®, Powdered Iron and MPP Cores



Kool Mu<sup>®</sup> is a registered trademark of Spang & Company

### **FEATURES**

- Toroidal design for minimal EMI radiation in DC/DC converter applications
- Designed to support the growing need for efficient DC/DC converters in battery operated equipment
- Two separate windings provide versatility by ability
- to connect windings in series or parallel
  Dielectric withstanding voltage: 500 V<sub>RMS</sub>, 60 Hz, 5 s
  Operating temperature range: -40 °C to +125 °C
  Supplied on tape and reel and is designed to be pick and place compatible
- Custom versions and turns ratios available. Contact the factory with your specifications
- Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

STANDARD ELECTRICAL SPECIFICATIONS (in parallel)												
MODEL	STD. IND. (µH)	IND. TOL.	ACTUAL IND. (LOC) (µH)	DCR (Ω)	RATED I <sub>DC</sub> (40 °C) (A)	IND. AT I <sub>DC</sub> (L <sub>BIAS</sub> ) (30 %)						
LPT4545ER1R0LK LPT4545ER1R5LK LPT4545ER2R5LK LPT4545ER3R3LK LPT4545ER5R0LK LPT4545ER100LK LPT4545ER100LK LPT4545ER200LK LPT4545ER200LK LPT4545ER200LK LPT4545ER330LK LPT4545ER30LK LPT4545ER151LK LPT4545ER151LK LPT4545ER251LK LPT4545ER331LK	1.0 1.5 2.5 3.3 5.0 15 25 33 50 100 150 250 330 330	± 155%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	0.832 1.30 2.55 3.33 5.20 10.2 15.0 20.8 25.2 32.5 50.0 101 152 248 300 333	0.003 0.004 0.006 0.007 0.011 0.019 0.029 0.038 0.048 0.107 0.195 0.302 0.491 0.670 0.706	6.90 6.45 5.75 5.50 4.45 3.45 2.79 2.61 2.25 1.85 1.50 0.73 0.63 0.60	0.51 at 7.62 0.80 at 6.10 1.57 at 4.35 2.05 at 3.81 3.20 at 3.05 6.28 at 2.18 9.26 at 1.79 12.4 at 1.53 15.5 at 1.39 20.0 at 1.22 30.8 at 0.98 62.0 at 0.69 93.4 at 0.56 153.0 at 0.44 179.0 at 0.40 205.0 at 0.40 205.0 at 0.38						
LPT4545ER1R0LP LPT4545ER2R5LP LPT4545ER2R5LP LPT4545ER3R3LP LPT4545ER5R0LP LPT4545ER100LP LPT4545ER150LP LPT4545ER330LP LPT4545ER300LP LPT4545ER500LP LPT4545ER5101LP LPT4545ER151LP LPT4545ER251LP LPT4545ER331LP	1.0 1.5 2.5 3.3 5.0 10 15 25 33 50 100 150 250 330	± 15.9% ± 15.9%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	0.838 1.21 2.71 3.35 5.66 10.9 14.8 26.3 34.3 51.0 105 150 248 335	0.004 0.005 0.009 0.012 0.019 0.034 0.049 0.084 0.119 0.180 0.342 0.509 0.831 1.194	6.61 6.08 5.01 4.22 3.32 2.52 2.10 1.61 1.34 1.09 0.66 0.52 0.43	0.53 at 7.09 0.76 at 5.91 1.71 at 3.94 2.11 at 3.54 3.57 at 2.73 6.84 at 1.97 9.31 at 1.69 16.5 at 1.27 21.6 at 1.11 32.1 at 0.91 66.2 at 0.63 94.7 at 0.53 156.0 at 0.41 211.0 at 0.35						
LPT4545ER1R0LM LPT4545ER1R5LM LPT4545ER2R5LM LPT4545ER3R3LM LPT4545ER5R0LM LPT4545ER100LM LPT4545ER150LM LPT4545ER150LM LPT4545ER30LM LPT4545ER300LM LPT4545ER500LM LPT4545ER151LM LPT4545ER151LM LPT4545ER151LM LPT4545ER251LM LPT4545ER331LM	1.0 1.5 2.5 3.3 5.0 10 15 25 33 50 100 150 250 330	± 15% ± 15%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	0.838 1.30 2.55 3.33 5.20 10.2 15.0 25.2 32.5 50.0 101 152 248 333	0.004 0.004 0.007 0.008 0.012 0.022 0.033 0.054 0.076 0.119 0.219 0.340 0.551 0.788	7.54 6.82 5.84 5.49 4.37 3.32 2.69 2.12 1.76 1.41 1.07 0.86 0.67 0.56	0.54 at 11.11 0.84 at 8.89 1.64 at 6.35 2.14 at 5.56 3.35 at 4.45 6.56 at 3.18 9.68 at 2.61 16.2 at 2.02 20.9 at 1.78 32.2 at 1.43 64.8 at 1.01 97.7 at 0.82 159.0 at 0.64 214.0 at 0.56						

	LI IOO I LI			10 /0		0.700	0.00		0 at 0.00			
DESCRIPTION												
LPT MODEL	<b>4545</b> SIZE	100 μΗ INDUCTANCE VALUE	± 15 % INDUCTANCE TOLERANCE	K = KO	A CORE/HEIGHT OL MU® (A) WDERED IRON (B) PP (C)	ER PACKAGE ( ER = re		JEDEC® LEA	e <b>2</b> AD (Pb)-FREE NDARD			
GLOBAL PART NUMBER												
L	Р		4 5 4	5	E R	1 0	1	L	K			

Note

PRODUCT FAMILY

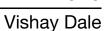
Series is also available with SnPb terminations by using package code RH for tape and reel (in place of ER)

SIZE

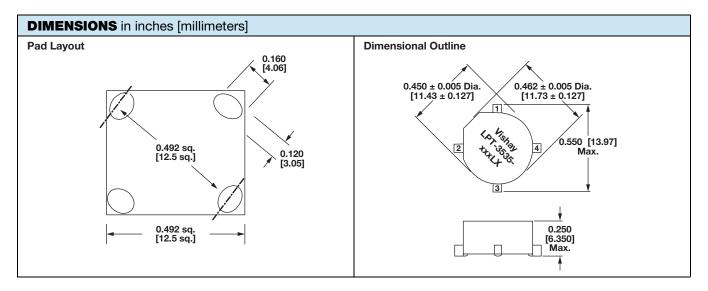
PACKAGE CODE

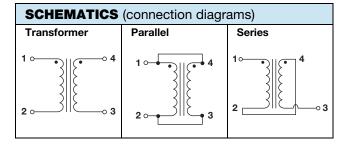
INDUCTANCE VALUE

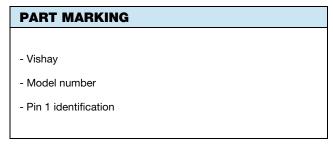
CORE

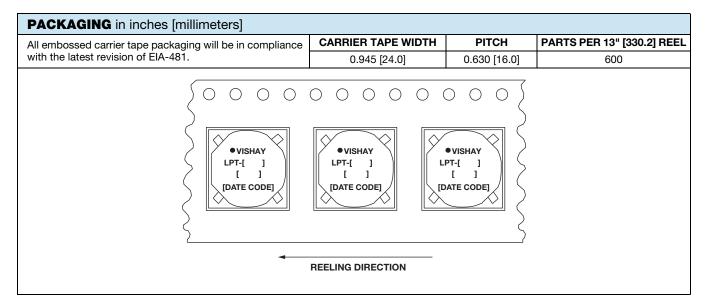














# **Legal Disclaimer Notice**

Vishay

## **Disclaimer**

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.