WE-FLEX Flexible Transformer for DC/DC Converter

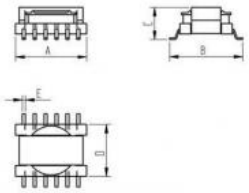
Characteristics:

- Transformer with 6 identical windings
- 4 sizes with 5 different lengths of air gap each
- Isolation voltage 500 VDC
- Low leakage inductance
- Operating temperature: –40 ºC to +125 ºC
- By using different circuits more than 300 transformer solutions and about 100 choke solutions possible. Consequently, quick prototyping possibilities
- Free download of design software for flyback transformers Component Selector

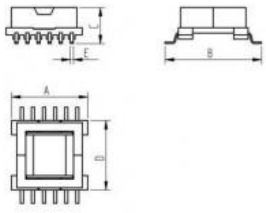
Applications:

- All kind of switching regulators
  -Flyback converters
  -Forward converters
  -Push-pull converters
  -Step-up/step-down converters
  -SEPIC converter

ER 11/5, ER 14.5/6



EFD 15, EFD 20



Dimensions

Size	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
ER11/5	12.9	13.0	6.2	9.2	0.7
ER14.5/6	16.3	16.8	7.4	12.0	0.7
EFD15	17.5	22.1	8.3	16.0	0.7
EFD20	21.0	29.5	10.8	21.0	0.7

Electrical properties

ER11/5

	Order Code	*	L_{base} (µH)	$I_{R\ base}$ (A)	$I_{sat\ base}$ (A)	$R_{DC\ base}$ (mΩ)	$\int Udt_{base}$ (µVs)	$L_{S\ base}$ (µH)	U_T (V (AC))	Topology	Download
	749196101	without air gap	198.6	0.55		344	32.9	0.21	500	Forward and Push-Pull Converter	

	749196111	with air gap	27.4	0.55	0.22	344		0.21	500	Flyback Converters and Inductors	
	749196121	with air gap	14.7	0.55	0.54	344		0.21	500	Flyback Converters and Inductors	
	749196131	with air gap	10.9	0.55	0.73	344		0.21	500	Flyback Converters and Inductors	
	749196141	with air gap	8.5	0.55	0.96	344		0.21	500	Flyback Converters and Inductors	

Electrical properties

ER14.5/6

	Order Code	*	L_{base} (µH)	$I_{R\ base}$ (A)	$I_{sat\ base}$ (A)	$R_{DC\ base}$ (mΩ)	$\int Udt_{base}$ (µVs)	$L_{S\ base}$ (µH)	U_T (V (AC))	Topology	Download
	749196201	without air gap	140	0.95		159	48.3	0.17	500	Forward and Push-Pull Converter	
	749196211	with air gap	21.6	0.95	0.36	159		0.17	500	Flyback Converters and Inductors	
	749196221	with air gap	11.6	0.95	0.84	159		0.17	500	Flyback Converters and Inductors	
	749196231	with air gap	8.3	0.95	1.20	159		0.17	500	Flyback Converters and Inductors	
	749196241	with air gap	6.6	0.95	1.55	159		0.17	500	Flyback Converters and Inductors	

Electrical properties

EFD15

	Order Code	*	L_{base} (µH)	$I_{R\ base}$ (A)	$I_{sat\ base}$ (A)	$R_{DC\ base}$ (mΩ)	$\int Udt_{base}$ (µVs)	$L_{S\ base}$ (µH)	U_T (V (AC))	Topology	Download
	749196301	without air gap	153.8	0.97		140	39.8	0.13	500	Forward and Push-Pull Converter	
	749196311	with air gap	23.3	0.97	0.33	140		0.13	500	Flyback Converters and Inductors	
	749196321	with air gap	14.2	0.97	0.63	140		0.13	500	Flyback Converters and Inductors	
	749196331	with air gap	9.3	0.97	1.09	140		0.13	500	Flyback Converters and Inductors	
	749196341	with air gap	7.9	0.97	1.33	140		0.13	500	Flyback Converters and Inductors	

Electrical properties

EFD20

	Order Code	*	L_{base} (µH)	$I_{R\ base}$ (A)	$I_{sat\ base}$ (A)	$R_{DC\ base}$ (mΩ)	$\int Udt_{base}$ (µVs)	$L_{S\ base}$ (µH)	U_T (V (AC))	Topology	Download
	749196500	without air gap	87.1	1.91		30	65.6	0.18	500	Forward and Push-Pull Converter	
	749196501	without air gap	196	1.70		71.1	98.4	0.24	500	Forward and Push-Pull Converter	
	749196510	with air gap	9.9	1.91	1.17	30		0.18	500	Flyback Converters and Inductors	
	749196520	with air gap	5.3	1.91	2.53	30		0.18	500	Flyback Converters and Inductors	

	749196530	with air gap	4.3	1.91	2.91	30		0.18	500	Flyback Converters and Inductors	
	749196540	with air gap	3.4	1.91	4.18	30		0.18	500	Flyback Converters and Inductors	
	749196511	with air gap	22.3	1.70	0.49	71.1		0.24	500	Flyback Converters and Inductors	
	749196521	with air gap	12.0	1.70	1.73	71.1		0.24	500	Flyback Converters and Inductors	
	749196531	with air gap	9.7	1.70	2.20	71.1		0.24	500	Flyback Converters and Inductors	
	749196541	with air gap	7.6	1.70	2.46	71.1		0.24	500	Flyback Converters and Inductors	

PLEASE NOTE:

The WE-FLEX series of transformers consist of 6 independent windings which can be connected on the board as required. The 25 transformers facilitate more than 500 transformer and choke variants. The transformers still show an outstandingly low level of leakage inductance. Parts without airgap are especially designed for buck derived topologies like forward or push-pull converters. The high flexibility of the transformers allows developers to realize their own transformers without having to resort to a customer-specific transformer. Power levels of between 1 and 50 Watts can be transformed with the WE-FLEX series transformers. They can be used at switching frequencies of up to 1 MHz.

- To Parameter Search
- Please contact our 24h eMail hotline for questions and feedback