Surface Mount Power Transformer

PCA ELECTRONICS INC.

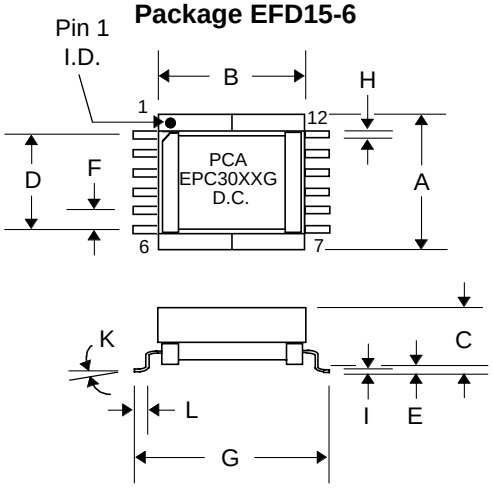
Features of the EFD15-6 Series

- Low Loss Material ensures operation in High Frequency Switching Converters such as Flyback, Buck, Boost Topology or as Coupled Inductors†
- Selected models can be used in Forward, Push-Pull or Half & Full Bridge Topology††
- 500 Vrms Isolations
- Very Low Leakage Inductance

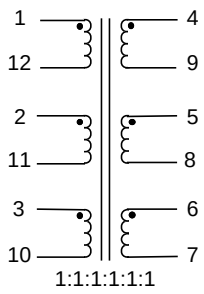
Primary Specification : †For Flyback, Buck, Boost Topolgy or as Coupled Inductors

Part Number	Connection	DCR (Ω Max.)	Idc (Amps)	Inductance (µH ± 20%) @ 0 Adc	Inductance Change @ Idc (Typ.)	Vt 1 (V-µSec. Max.)	Temp. Rise @ Idc (°C Typ.)
	Series	.083 xNs	2.6 /Ks	23.7 x(Ns) ^{2}	28%	62.5 xNs	20
EPC3020G	Parallel	.083 /Np	2.6 /Kp	23.7	28%	62.5	20
	Single Wdg	.083	1.8	23.7	6%	62.5	39
	Series	.057xNs	3.6 /Ks	11.3 x(Ns) ^{2}	26%	43 xNs	24
EPC3021G	Parallel	.057 /Np	3.6 /Kp	11.3	26%	43	24
	Single Wdg	.057	2.17	11.3	4%	43	39
	Series	.083 xNs	4.4 /Ks	12.7 x(Ns) ^{2}	6.5%	62.5 xNs	39
EPC3022G	Parallel	.083 /Np	4.4 /Kp	12.7	6.5%	62.5	39
	Single Wdg	.083	1.8	12.7	0%	62.5	39
	Series	.057xNs	5.3 /Ks	6.1 x(Ns)2	3%	43 xNs	39
EPC3023G	Parallel	.057 /Np	5.3 /Kp	6.1	3%	43	39
	Single Wdg	.057	2.17	6.1	0%	43	39
	Series	.083 xNs	4.4 /Ks	10.1 x(Ns) ^{2}	2%	62.5 xNs	39
EPC3024G	Parallel	.083 /Np	4.4 /Kp	10.1	2%	62.5	39
	Single Wdg	.083	1.8	10.1	0%	62.5	39
	Series	.057xNs	5.3 /Ks	4.9 x(Ns)2	0.5%	43 xNs	39
EPC3025G	Parallel	.057 /Np	5.3 /Kp	4.9	0.5%	43	39
	Single Wdg	.057	2.17	4.9	0%	43	39

Package EFD15-6



Schematic



Notes :

1. Ns = Number of series connections
2. Np = Number of parallel connections
3. Ks = Ns x $\sqrt{6/Ns}$
4. Kp = $\sqrt{6/Np}$

Dimensions

Dim.	(Inches) Min.	Max.	Nom.	(Millimeters) Min.	Max.	Nom.
A	---	.709	---	---	18.00	---
B	---	.646	---	---	16.40	---
C	---	.394	---	---	10.00	---
D	---	---	.492	---	---	12.50
E	---	---	.012	---	---	.300
F	---	---	.098	---	---	2.50
G	---	---	.837	---	---	21.25
H	---	---	.028	---	---	.700
I	---	---	.012	---	---	.300
K	0°	8°	---	0°	8°	---
L	---	---	.072	---	---	1.82

PCA ELECTRONICS, INC.
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CSC3018-C3027Ga Rev. - 9/25/01

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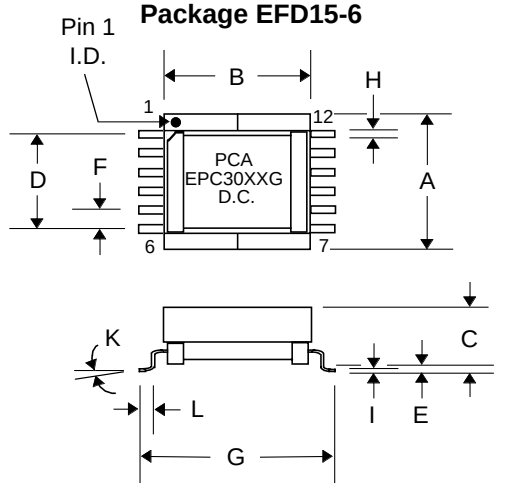
Part Number	Connection	DCR (Ω Max.)	Idc (Amps)	Inductance (µH ± 20%) @ 0 Adc	Inductance Change @ Idc (Typ.)	Vt 1 (V-µSec. Max.)	Temp. Rise @ Idc (°C Typ.)
	Series	.083 xNs	4.4 /Ks	7.94 x(Ns) ^{2}	0%	62.5 xNs	39
EPC3026G	Parallel	.083 /Np	4.4 /Kp	7.94	0%	62.5	39
	Single Wdg	.083	1.8	7.94	0%	62.5	39
	Series	.057xNs	5.3 /Ks	3.8 x(Ns) ^{2}	0%	43 xNs	39
EPC3027G	Parallel	.057 /Np	5.3 /Kp	3.8	0%	43	39
	Single Wdg	.057	2.17	3.8	0%	43	39

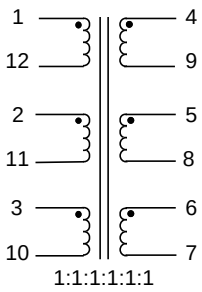
Primary Specification : ††For Forward, Push-Pull, Half & Full Bridge Topology

Part Number	Connection	DCR (Ω Max.)	Irms (Amps)	Inductance (µH ± 30%) @ 0 Adc	Inductance Change ---	Vt 1 (V-µSec. Max.)	Temp. Rise @ Irms (°C Typ.)
	Series	.083 xNs	4.4 /Ks	131.8 x(Ns) ^{2}	---	62.5 xNs	39
EPC3018G	Parallel	.083 /Np	4.4 /Kp	131.8	---	62.5	39
	Single Wdg	.083	1.8	131.8	---	62.5	39
	Series	.057xNs	5.3 /Ks	63.2 x(Ns) ^{2}	---	43 xNs	39
EPC3019G	Parallel	.057 /Np	5.3 /Kp	63.2	---	43	39
	Single Wdg	.057	2.17	63.2	---	43	39

Package EFD15-6



Schematic



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