



# Inductors





## Contents

### Surface Mount Power Inductor Series

PCA Part No.	Inductance ( $\mu$ H)	DCR ( $\Omega$ Max.)	IDC (A)	Inductance	L	W	H
EPI-B20 Toroid Series	1.05 - 248	.011 - 2.225	.180 - 3.4	0.9 - 220	.330	.330	.270
EPI-B30 Toroid Series	1.8 - 360	.007 - 2.0	.260 - 3.1	1.7 - 330	.435	.440	.360
EPI-BH30 Toroid Series	5 - 167	.0148 - .333	.94 - 4.8	3.8 - 116	.425	.430	.360
EPI-BSP30 Toroid Series	123	.5	.610 - .850	94	.500	.500	.215
EPI-B37F Toroid Series	10.4 - 56	.024 - .208	1.7 - 4.0	9.2 - 48.7	.500	.215	.500
EPI-B38 Toroid Series	1.3 - 518	.004 - 1.3	.42 - 9.4	1.1 - .380	.555	.560	.350
EPI-BH38 Toroid Series	.9 - 1.76	.0016 - .0028	12 - 14	.72 - 1.31	.600	.615	.370
EPI-B44 Toroid Series	.92 - 1372	.0036 - 1.45	.48 - 10	.82 - 1000	.585	.610	.390
EPI-BH44 Toroid Series	2.1 - 3.1	.0027 - .0040	11 - 14	1.4 - 2.2	.650	.650	.400
EPI-BHC44 Toroid Series	.92	.0011	23.8	.58	.865	.715	.390
EPI-B50 Toroid Series	1.18 - 1314	.0037 - 1.25	.5 - 11	1.0 - 1000	.670	.700	.390
EPI-BH68 Toroid Series	27 - 265	.025 - .394	1.5 - 5.0	22 - 220	.940	.940	.390
EPI-BHC68 Toroid Series	3.51	.0028	22.4	2.13	1.11	1.00	.390
EPI-BSPH68 Toroid Series	1.94 - 7.1	.001 - .004	24 - 38	1.1 - 3.2	1.220	1.00	.500
EPI-D8763 Drum Series	.78 - 15	.0026 - .032	4.4 - 15	8 - 30	.880	.640	.315
EPI-F1818 Shielded Series	1.2 - 180	.024 - 1.54	.22 - 2.56	1.2 - 180	.195	.195	.118
EPI-F1818L Shielded Series	1.0 - 39	.045 - .709	.30 - 1.72	1 - 39	.195	.195	.079
EPI-F2222 Shielded Series	2.6 - 100	.018 - .520	.42 - 2.6	2.6 - 100	.224	.224	.118
EPI-F2626 Shielded Series	3.3 - 100	.02 - .358	.65 - 3.5	3.3 - 100	.264	.264	.157
EPI-F2626L Shielded Series	3.0 - 100	.024 - .535	.54 - 3.00	3 - 100	.264	.264	.118
EPI-F3030 Shielded Series	10 - 1000	.049 - 6.00	.18 - 1.84	10 - 1000	.287	.287	.177
EPI-F3030L Shielded Series	10 - 1000	.072 - 9.44	.16 - 1.68	10 - 1000	.287	.287	.138
EPI-F4040 Shielded Series	1.5 - 330	.0081 - 1.09	.7 - 10	1.5 - 330	.402	.394	.150
EPI-F4747 Shielded Series	10 - 1000	.022 - 1.82	.55 - 5.40	10 - 1000	.472	.472	.315
EPI-F4747L Shielded Series	10 - 1000	.025 - 1.53	.40 - 4	10 - 1000	.472	.472	.236
EPI-F4747LP Shielded Series	3.9 - 330	.015 - .990	.5 - 6.5	3.9 - 330	.472	.472	.177
EPI-G1816 Drum Series	1.0 - 68	.049 - 1.117	.37 - 2.56	1 - 68	.177	.157	.126
EPI-G4036 Drum Series	10 - 8200	.06 - 26	.05 - 2.6	10 - 8200	.394	.354	.213
EPI-G4036L Drum Series	10 - 560	.053 - 1.904	.32 - 2.38	10 - 560	.394	.354	.157
EPI KSP45 Series	.55 - 78.4	.006 - .339	.75 - 5.90	.4 - 53	.460	.460	.235
EPI KSP45L Series	.40 - 38.4	.006 - .636	.70 - 2.75	.3 - 56.0	.460	.460	.165
EPI KSP56 Series	.44 - 78.4	.004 - .220	1.05 - 7.0	.30 - 40	.560	.560	.250

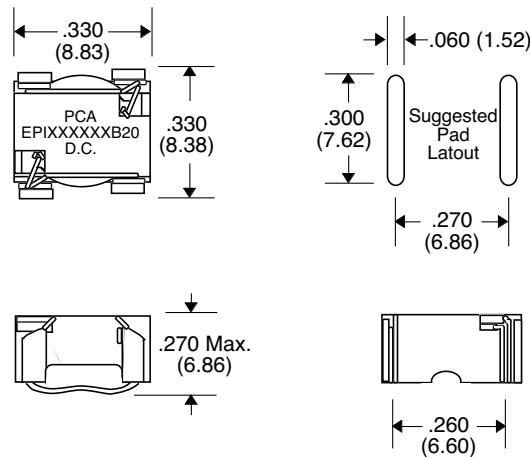
## EPI B20 Series

- Optimized for National's LM259X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 150 KHz & 500 KHz Switching Frequency
- Low Cost Inductor

### Primary Specification

Part Number	National Semiconductor Chip	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 15\%$ ) @ Idc	Idc (mA)	Core Loss		Vt1 (V- $\mu\text{Sec}$ ) 150 KHz	Vt2 (V- $\mu\text{Sec}$ ) 260 KHz	Temp.Rise	
						@ Vt1 (mW)	@ Vt2 (mW)			@ Vt1 °C (Typ.)	@ Vt2 °C (Typ.)
EPI1L0342B20	---	1.05	.011	0.9	3400	---	6.5	---	0.5	---	54
EPI4L7122B20	---	5.2	.051	4.7	1200	---	23.4	---	2.0	---	40
EPI6L8951B20	---	7.5	.061	6.8	950	---	23.4	---	2.4	---	34
EPI100801B20	---	10.9	.094	10	800	---	23.4	---	3.0	---	35
EPI150701B20	---	16.8	.148	15	700	---	23.4	---	3.6	---	40
EPI220601B20	LM259X-L7	25	.224	22	600	23.4	---	6.6	---	42	---
EPI330441B20	LM259X-L6	36.5	.343	33	440	23.4	---	8.0	---	38	---
EPI470371B20	LM259X-L5	51.6	.408	47	370	23.4	---	9.3	---	34	---
EPI680321B20	LM259X-L4	75	.625	68	320	23.4	---	11.3	---	37	---
EPI101261B20	LM259X-L3	110	.958	100	260	23.4	---	14	---	37	---
EPI151211B20	LM259X-L2	166	1.476	150	210	23.4	---	17	---	37	---
EPI221181B20	LM259X-L1	248	2.225	220	180	23.4	---	20.6	---	40	---

### Package B20



**Note:** Coplanarity within .005" Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

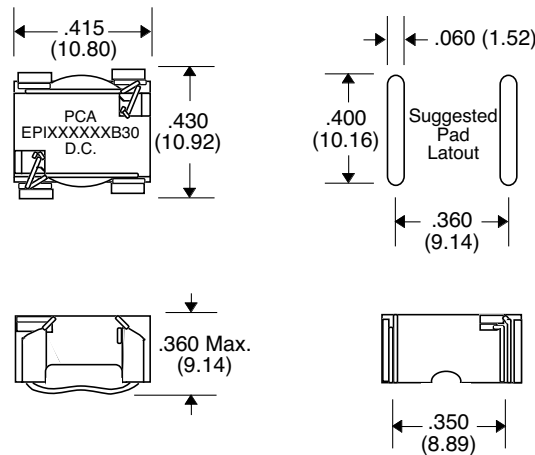
## EPI B30 Series

- Optimized for National's LM259X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 150 KHz & 500 KHz Switching Frequency
- Low Cost Inductor

### Primary Specification

Part Number	National Semiconductor Chip	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 15\%$ ) @ Idc	Idc (mA)	Core Loss		Vt1 (V- $\mu\text{Sec}$ ) 150 KHz	Vt2 (V- $\mu\text{Sec}$ ) 260 KHz	Temp.Rise	
						@ Vt1 (mW)	@ Vt2 (mW)			@ Vt1 °C (Typ.)	@ Vt2 °C (Typ.)
EPI1L7312B30	---	1.8	.007	1.7	3100	44	44	2.7	1.6	22	22
EPI2L5272B30	---	2.66	.008	2.5	2700	44	44	3.3	2.0	21	21
EPI4L7192B30	---	4.95	.018	4.7	1900	44	44	4.7	2.8	21	21
EPI100152B30	---	10.6	.042	10	1500	44	44	6.7	4.0	26	26
EPI150132B30	LM259X-L16	16	.067	15	1300	44	---	8.0	---	29	---
EPI220102B30	LM259X-L15	24	.101	22	1000	44	---	10.0	---	27	---
EPI330831B30	LM259X-L14	35	.153	33	830	44	---	12.0	---	28	---
EPI470701B30	LM259X-L13	51	.235	47	700	44	---	14.7	---	29	---
EPI680581B30	LM259X-L12	74	.358	68	580	44	---	17.3	---	30	---
EPI101481B30	LM259X-L11	108	.535	100	480	44	---	21.3	---	30	---
EPI151391B30	LM259X-L10	163	.836	150	390	44	---	26.0	---	31	---
EPI221321B30	LM259X-L9	242	1.3	220	320	44	---	31.3	---	32	---
EPI331261B30	LM259X-L8	360	2.0	330	260	44	---	38.0	---	32	---

### Package B30



**Note:** Coplanarity within .005" Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI BH30 Series



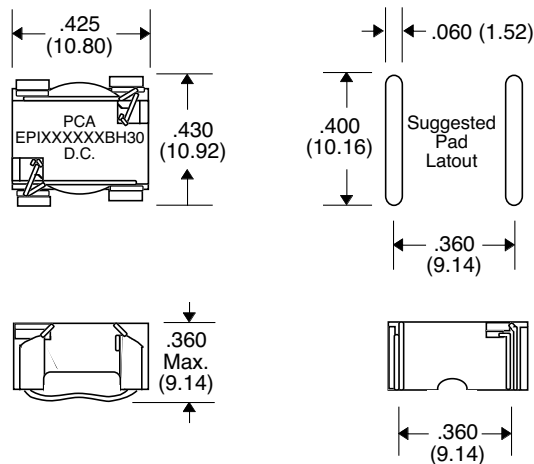
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 500 KHz Switching Frequency

### Electrical Parameters @ 25° C

Part Number	Inductance ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Idc (Amps)	Inductance ( $\mu\text{H} \pm 15\%$ ) @ Idc	Vt (V- $\mu\text{sec}$ ) @ 500 KHz	Temp. Rise @ Idc (°C Typ.)
EPI3L8482BH30	5.0	.0148	4.8	3.8	1.6	57
EPI9L6282BH30	12.6	.0377	2.8	9.6	2.6	51
EPI290142BH30	35.2	.123	1.40	29	4.3	43
EPI111941BH30	167	.333	.94	116	9.4	51

• Core Loss @ Vt : 15 mW •

### Package BH30



**Note:** Coplanarity within .005" Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI BSP30 Series

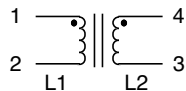


- Used as a Sepic Inductor on T.I.'s TPS6113X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost/Couple Inductor or as Flyback Transformer
- Also suitable for use in high quality filter applications
- UL1446 Class B Insulating System
- UL94V-0 Recognized Materials
- 250 KHz Switching Frequency

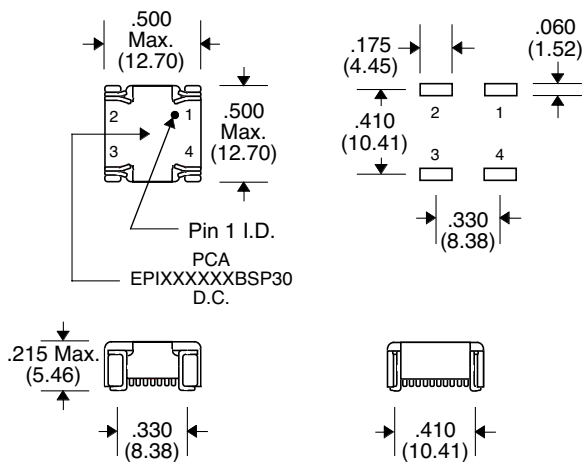
### Primary Specification

Part Number	Connection	Inductance ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	Inductance ( $\mu\text{H} \pm 15\%$ ) @ I <sub>dc</sub>	DCR ( $\Omega$ Typ.)	I <sub>dc</sub> (Amps)	ET (V- $\mu\text{Sec.}$ ) @ 250 KHz
EPI900132BSP30	Series	363.4	344.9	1.048	0.65	100.40
	Parallel	90.8	86.2	.262	1.30	50.20
EPI670152BSP30	Series	269.7	256.0	.708	0.75	86.48
	Parallel	67.4	64.0	.177	1.50	43.24
EPI470182BSP30	Series	190.0	180.0	.476	0.90	72.56
	Parallel	47.5	45.0	.119	1.80	36.28
EPI330212BSP30	Series	130.8	124.2	.320	1.08	60.24
	Parallel	32.7	31.0	.080	2.16	30.12
EPI220262BSP30	Series	88.1	83.6	.212	1.32	49.44
	Parallel	22.0	20.9	.053	2.64	24.72
EPI150312BSP30	Series	62.8	59.5	.152	1.56	41.68
	Parallel	15.7	14.9	.038	3.12	20.84
EPI100382BSP30	Series	41.6	39.5	.096	1.92	33.92
	Parallel	10.4	9.9	.024	3.84	16.96
EPI5L5522BSP30	Series	22.0	20.9	.068	2.60	24.72
	Parallel	5.51	5.2	.017	5.20	12.36
EPI2L6722BSP30	Series	10.4	10.0	.036	3.60	16.96
	Parallel	2.61	2.5	.009	7.20	8.48
EPI2L1832BSP30	Series	8.6	8.17	.026	4.15	15.44
	Parallel	2.15	2.05	.0065	8.30	7.72
EPI331611BSP30	Series	363.4	350	1.048	.610	100.40
	Parallel	90.8	90	.262	.850	50.20

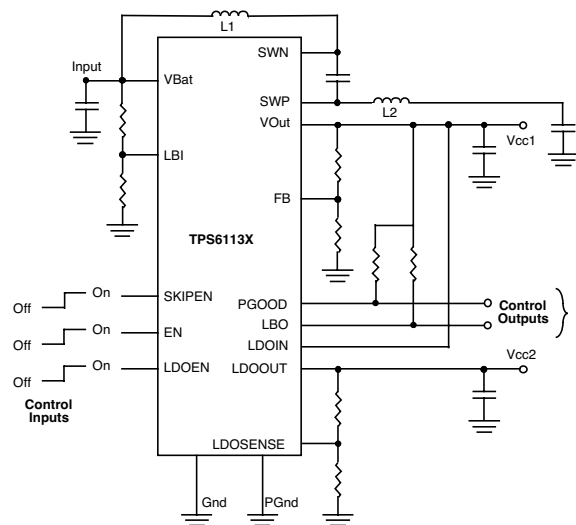
### Schematic



### Package BSP30



### Application



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI B37F Series



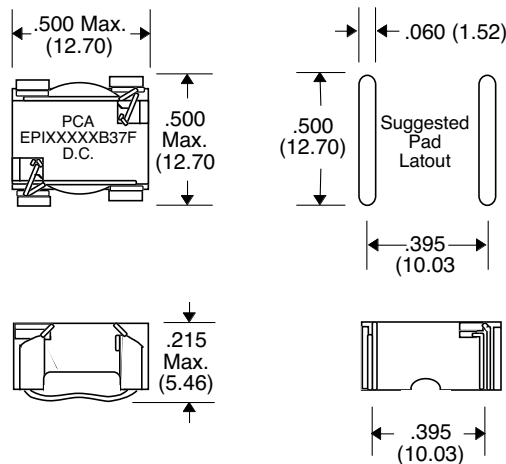
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- Up to 1 MHz Switching Frequency
- UL 94V-0 Recognized Materials

### Electrical Parameters @ 25° C

Part Number	Inductance ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Idc (Amps)	Inductance ( $\mu\text{H} \pm 15\%$ ) @ Idc	Vt (V- $\mu\text{sec}$ ) @ 265 KHz	Temp. Rise @ Idc (°C Typ.)
EPI100402B37F	10.4	.020	4.0	9.2	18.9	50
EPI150322B37F	14.6	.028	3.2	13.4	22.3	47
EPI250252B37F	24.9	.048	2.5	23	29.1	48
EPI560172B37F	56.0	.115	1.7	50	43.8	52
EPI820142B37F	82.6	.172	1.4	75	53.3	53
EPI101132B37F	99.4	.235	1.3	90	58.2	60
EPI151102B37F	151.7	.371	1.0	135	71.7	57
EPI221811B37F	219.3	.446	.81	198	86.8	47
EPI331651B37F	330.6	.691	.65	308	105.7	47
EPI471531B37F	470.9	1.021	.53	448	126.5	46

• Core Loss @ Vt : 25 mW •

### Package



**Note:** Coplanarity within .005" Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

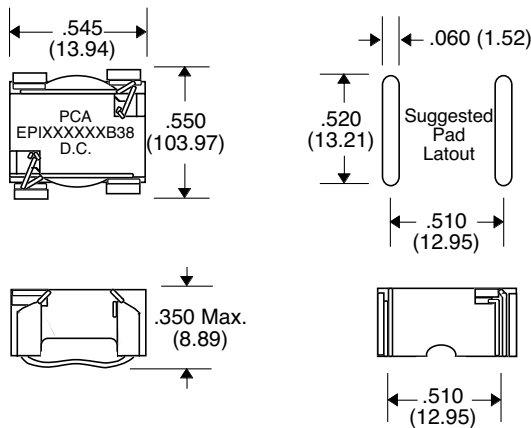
## EPI B38 Series

- 150 KHz Switching Frequency for National's LM259X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 200 KHz & 500 KH KHz Switching Frequency
- Low Cost Inductor

### Primary Specification

Part Number	National Semicon. Chip	Inductance ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Idc (Amps)	Inductance ( $\mu\text{H} \pm 15\%$ ) @ Idc	Vt1	Vt2	Vt3	Temp. Rise		
						(V- $\mu\text{sec}$ ) @ 200 KHz	(V- $\mu\text{sec}$ ) @ 500 KHz	(V- $\mu\text{sec}$ ) @ 150 KHz	@ Vt1 °C (Typ.)	@ Vt2 °C (Typ.)	@ Vt3 °C (Typ.)
EPI1L1942B38	---	1.3	.004	9.4	1.1	2.3	1.0	---	40	40	---
EPI1L9802B38	---	2.3	.005	8.0	1.9	3.1	1.3	---	39	39	---
EPI3L0662B38	---	3.6	.006	6.6	3.0	3.9	1.6	---	35	35	---
EPI5L0502B38	---	6.0	.013	5.0	5.0	5.0	2.0	---	40	40	---
EPI6L6442B38	---	8.1	.020	4.4	6.6	5.8	2.3	---	37	37	---
EPI100342B38	---	11.6	.030	3.4	10.0	7.0	2.8	---	40	40	---
EPI120282B38	---	14.4	.042	2.8	12.0	7.8	3.1	---	40	40	---
EPI150262B38	LM259X-L25	17.4	.046	2.6	15.0	8.5	3.4	12.7	38	38	41
EPI180232B38	---	20.7	.062	2.3	18.0	9.3	3.7	---	39	39	---
EPI220182B38	LM259X-L24	24.0	.087	1.8	22.0	10.0	4.0	14.7	35	35	38
EPI270162B38	---	30.0	.097	1.6	27.0	11.3	4.5	---	32	32	---
EPI330142B38	LM259X-L23	37.0	.130	1.4	33.0	12.4	5.0	18	33	33	36
EPI390122B38	---	41.6	.174	1.2	39.0	13.3	5.3	---	32	32	---
EPI470112B38	LM259X-L22	52.0	.248	1.1	47.0	14.8	5.9	22	37	37	40
EPI560102B38	---	60.5	.268	1.0	56.0	16.0	6.4	---	34	34	---
EPI680102B38	LM259X-L21	76	.300	1.0	68.0	19.5	7.8	26	37	37	40
EPI2L8802B38	---	3.6	.0063	8.0	2.8	3.8	2.0	---	46	46	---
EPI4L9542B38	---	6.1	.0132	5.4	4.9	5.0	2.8	---	46	46	---
EPI170272B38	---	20.7	.050	2.7	17	9.0	5.2	---	43	43	---
EPI600132B38	---	69.7	.180	1.3	60	17	9.4	---	37	37	---
EPI101821B38	LM259X-L20	113	.365	.82	100	21.5	12	32	32	32	35
EPI151661B38	LM259X-L19	166	.560	.66	150	26	14.8	38.7	32	32	35
EPI201901B38	---	260	.434	.90	200	33	18.2	---	42	42	---
EPI221551B38	LM259X-L18	242	.836	.55	220	31.5	17.6	46.7	32	32	35
EPI331421B38	LM259X-L17	360	1.30	.42	330	38.5	21.6	56.7	30	30	33
EPI381721B38	---	518	.783	.72	380	46.5	26	---	46	46	---

### Package B38



**Note:** Coplanarity within .005" Max.

### Notes :

1. Core loss at ref. Vt 1 & VT 2 = 37 mW
2. Core loss at ref. Vt 3 = 67 mW
3. Inductance change at Idc: 20% Max.
4. Coplanarity within .005" Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$



## EPI BH38 Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 250 KHz & 500 KHz Switching Frequency

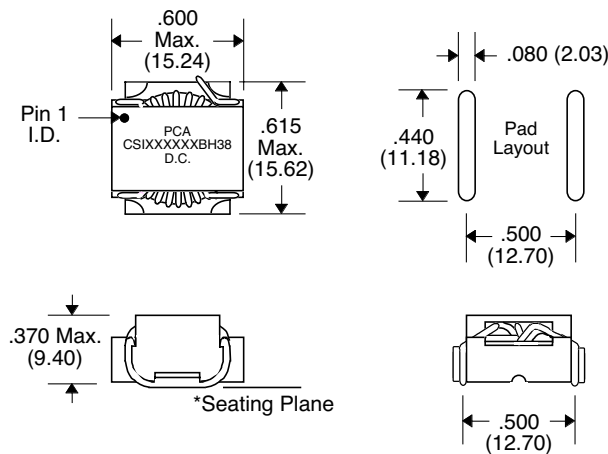
### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 20\%$ ) @ Idc	Idc (A)	Core Loss		Vt1 (V- $\mu\text{Sec}$ ) 250 KHz	Vt2 (V- $\mu\text{Sec}$ ) 500 KHz	Temp.Rise	
					@ Vt1 (mW)	@ Vt2 (mW)			@ Vt1 $^{\circ}\text{C}$ (Typ.)	@ Vt2 $^{\circ}\text{C}$ (Typ.)
EPI0L7143BH38	0.9	.0016	0.72	14	47	47	1.8	1.2	39	39
EPI0L9133BH38	1.3	.0024	0.99	13.3	22.4	22.4	1.6	1.04	47	47
EPI1L3123BH38	1.76	.0028	1.31	12	47	47	2.6	1.7	47	47

### Schematic



### Package BH38



\*Coil must clear Seating Plane by .010/0.25  
Coplanarity : .005/0.13

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI B44 Series

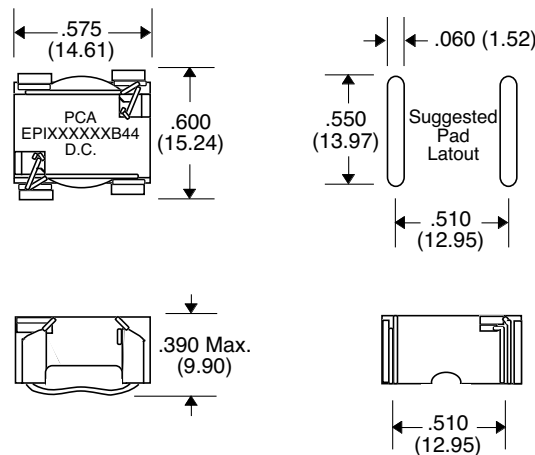
- 150 KHz Switching Frequency for National's LM259X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 500 KHz Switching Frequency

### Primary Specification

Part Number	National Semiconductor Chip	Induct. ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} \pm 15\%$ ) @ Idc	Idc (Amps)	Vt1 (V- $\mu\text{Sec}$ ) @ 500 KHz	Vt2 (V- $\mu\text{Sec}$ ) @ 150 KHz	Temp.Rise	
								@ Vt1 °C (Typ.)	@ Vt2 °C (Typ.)
EPI0L8103B44	---	0.92	.0036	.82 $\pm$ 20%	10.0	1.2	---	38	---
EPI1L5902B44	---	1.60	.0048	1.5 $\pm$ 20%	9.0	1.6	---	40	---
EPI2L2802B44	---	2.55	.0061	2.2 $\pm$ 20%	8.0	2.0	---	40	---
EPI3L3702B44	---	4.31	.0079	3.3	7.0	2.6	---	40	---
EPI4L5602B44	---	5.74	.009	4.5	6.0	3.0	---	35	---
EPI6L5502B44	---	8.26	.014	6.5	5.0	3.6	---	37	---
EPI100452B44	---	13.5	.022	10	4.5	4.6	---	45	---
EPI150352B44	LM259X-L34	20.0	.027	15	3.5	5.6	13.3	36	38
EPI220312B44	LM259X-L33	29.5	.043	22	3.1	6.8	16.7	41	43
EPI330252B44	LM259X-L32	45.0	.065	33	2.5	8.4	20.0	41	43
EPI470222B44	LM259X-L31	63.75	.077	47	2.2	10.0	24.7	39	41
EPI560202B44	---	77.0	.121	56	2.0	11.0	---	44	---
EPI680182B44	LM259X-L30	95.0	.122	68	1.8	12.2	30	40	42
EPI101152B44	LM259X-L29	140	.182	100	1.5	14.8	36.7	41	43
EPI151122B44	LM259X-L28	202	.284	150	1.2	17.8	43.3	41	43
EPI221102B44	LM259X-L27	303	.427	220	1.0	21.8	53.3	42	45
EPI331801B44	LM259X-L26	451	.650	330	0.8	26.6	65.3	42	44
EPI471701B44	---	645	.778	470	0.7	31.8	---	39	---
EPI681581B44	---	930	1.20	680	0.58	38.2	---	41	---
EPI102481B44	---	1372	1.45	1000	0.48	46.4	---	36	---

• Core Loss at Ref. Vt1 : 45 mW • Core Loss at Ref. Vt2 : 72 mW •

### Package B44



**Note:** Coplanarity within .005" Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm$  .010 /.25

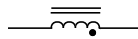
## EPI BH44 Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 250 KHz & 500 KHz Switching Frequency

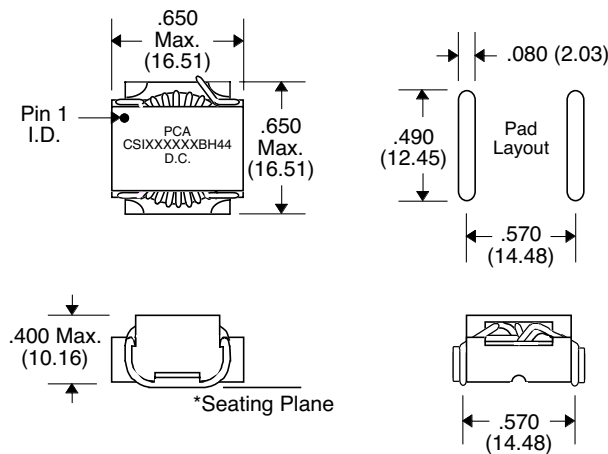
### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 15\%$ ) @ Idc	Idc (A)	Core Loss		Vt1 (V- $\mu\text{Sec}$ ) 250 KHz	Vt2 (V- $\mu\text{Sec}$ ) 500 KHz	Temp.Rise	
					@ Vt1 (mW)	@ Vt2 (mW)			@ Vt1 $^{\circ}\text{C}$ (Typ.)	@ Vt2 $^{\circ}\text{C}$ (Typ.)
EPI1L4143BH44	2.1	.0027	1.4	14	36	36	2.48	1.6	50	50
EPI2L2113BH44	3.1	.0040	2.2	11	46	46	3.32	2.2	49	49

### Schematic



### Package BH44



\*Coil must clear Seating Plane by .010/0.25  
Coplanarity : .005/0.13

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI BHC44 Series

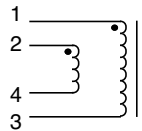
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 500 KHz Switching Frequency

### Primary Specification

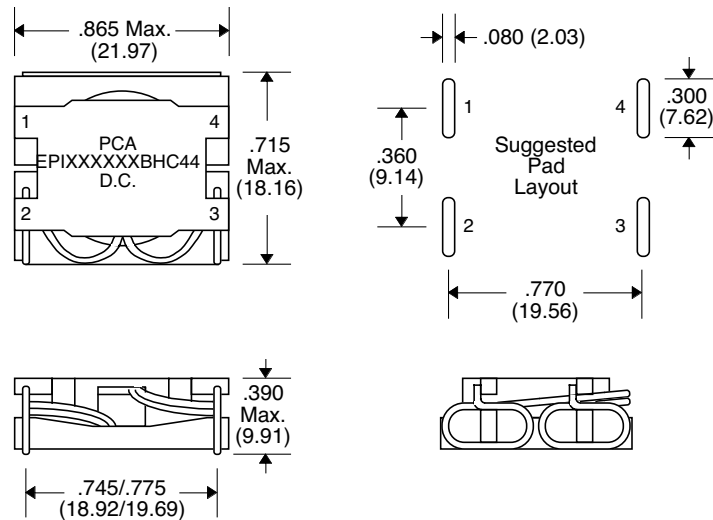
Part Number	Connection	Inductance ( $\mu\text{H} \pm 15\%$ ) @ 0 Idc	DCR ( $\Omega$ Typ.)	Idc (Amps)	Inductance ( $\mu\text{H} \pm 15\%$ ) @ Odc	Vt (V- $\mu\text{sec}$ ) @ 500 KHz	Temp. Rise ( $^{\circ}\text{C}$ Typ.) @ Vt1
EPI0L6243BHC44	Series Parallel	2.33 0.58	.0046 .0011	11.9 23.8	3.67 0.92	2.0 1.0	58 58

• Core Loss @ Ref. Vt : 32 mW •

### Schematic



### Package BHC44



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI B50 Series

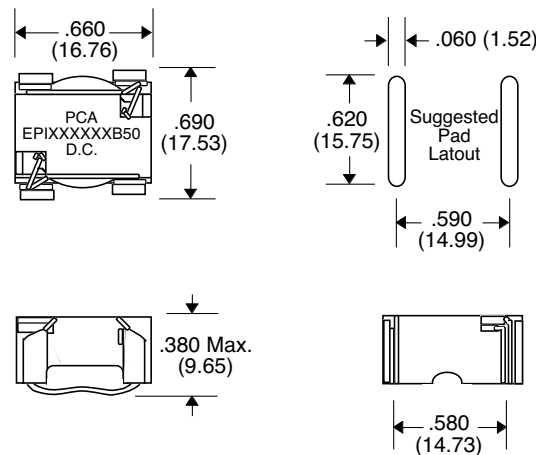
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 500 KHz & 200 KHz Switching Frequency

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 15\%$ ) @ Idc	Idc (Amps)	Vt1 (V- $\mu\text{Sec}$ ) @ 500 KHz	Vt2 (V- $\mu\text{Sec}$ ) @ 200 KHz	Temp.Rise	
							@ Vt1 °C (Typ.)	@ Vt2 °C (Typ.)
EPI1L0113B50	1.18	.0037	1.0 $\pm$ 20%	11.0	1.4	---	35	---
EPI1L5103B50	1.9	.0047	1.5 $\pm$ 20%	10.4	1.8	---	39	---
EPI2L2942B50	2.9	.0058	2.2 $\pm$ 20%	9.4	2.2	---	39	---
EPI3L3832B50	4.0	.0069	3.3	8.3	2.6	---	37	---
EPI4L7792B50	6.1	.0085	4.7	7.9	3.2	---	40	---
EPI6L8702B50	9.6	.0106	6.8	7.0	4.0	---	40	---
EPI100552B50	16.2	.016	10	5.5	5.0	---	37	---
EPI150452B50	21.3	.026	15	4.5	6.0	---	40	---
EPI220352B50	29.4	.037	22	3.5	7.0	---	36	---
EPI330292B50	44.3	.061	33	2.9	8.6	---	38	---
EPI470242B50	62.4	.086	47	2.4	10.2	---	38	---
EPI560202B50	73	.121	56	2.0	11.0	---	37	---
EPI600102B50	64.9	.100	60	1.0	---	19.8	---	14
EPI680152B50	81	.202	68	1.5	11.6	---	36	---
EPI101122B50	118	.300	100	1.2	13.6	---	34	---
EPI151102B50	177	.460	150	1.0	17.2	---	36	---
EPI221901B50	270	.566	220	0.9	21.2	---	36	---
EPI331801B50	418	.705	330	0.8	26.4	---	36	---
EPI471701B50	607	.850	470	0.7	31.8	---	34	---
EPI681601B50	894	1.03	680	0.6	38.6	---	31	---
EPI102501B50	1314	1.25	1000	0.5	46.	---	27	---

• Core Loss at Ref. Vt1 : 48 mW • Core Loss at Ref. Vt2 : 53.7 mW •

### Package B50



**Note:** Coplanarity within .005" Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm$  .010 / .25

## EPI BHC68 Series



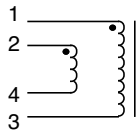
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 500 KHz Switching Frequency

### Primary Specification

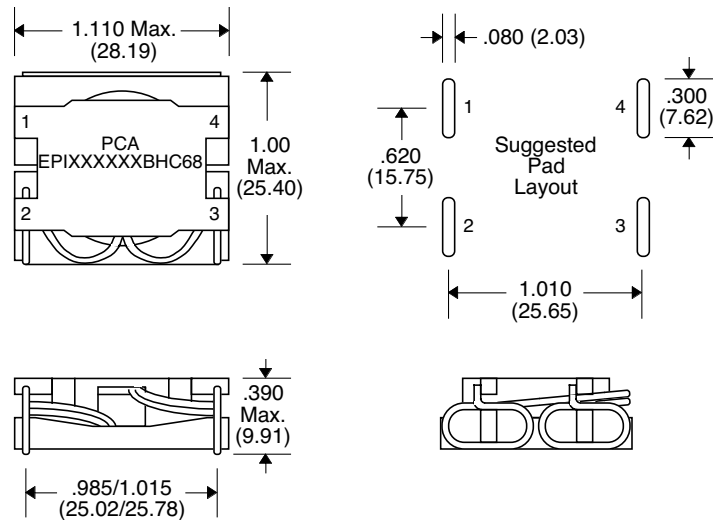
Part Number	Connection	Inductance ( $\mu\text{H} \pm 15\%$ ) @ 0 Idc	DCR ( $\Omega$ Typ.)	Idc (Amps)	Inductance ( $\mu\text{H} \pm 15\%$ ) @ Odc	Vt (V- $\mu\text{sec}$ ) @ 500 KHz	Temp. Rise ( $^{\circ}\text{C}$ Typ.) @ Vt1
EPI2L1223BHC68	Series Parallel	8.55 2.13	.0114 .0028	11.2 22.4	14.00 3.51	6.4 3.2	59 59

• Core Loss @ Ref. Vt : 83 mW •

### Schematic



### Package BHC68



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI BHC68 Series



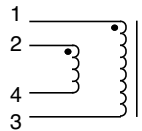
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 500 KHz Switching Frequency

### Primary Specification

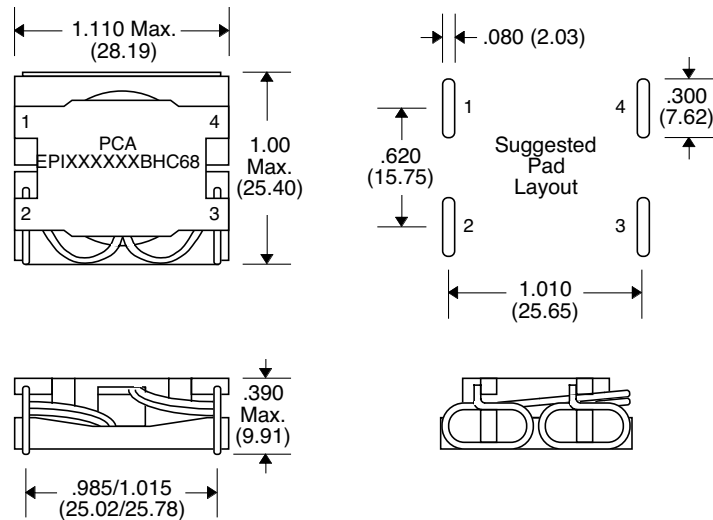
Part Number	Connection	Inductance ( $\mu\text{H} \pm 15\%$ ) @ 0 Idc	DCR ( $\Omega$ Typ.)	Idc (Amps)	Inductance ( $\mu\text{H} \pm 15\%$ ) @ Odc	Vt (V- $\mu\text{sec}$ ) @ 500 KHz	Temp. Rise ( $^{\circ}\text{C}$ Typ.) @ Vt1
EPI0L6243BHC68	Series Parallel	8.55 2.13	.0114 .0028	11.2 22.4	14.00 3.51	6.4 3.2	59 59

• Core Loss @ Ref. Vt : 83 mW •

### Schematic



### Package BHC68



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI BSPH68 Series

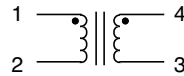


- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 250 KHz & 500 KHz Switching Frequency

### Electrical Parameters @ 25° C

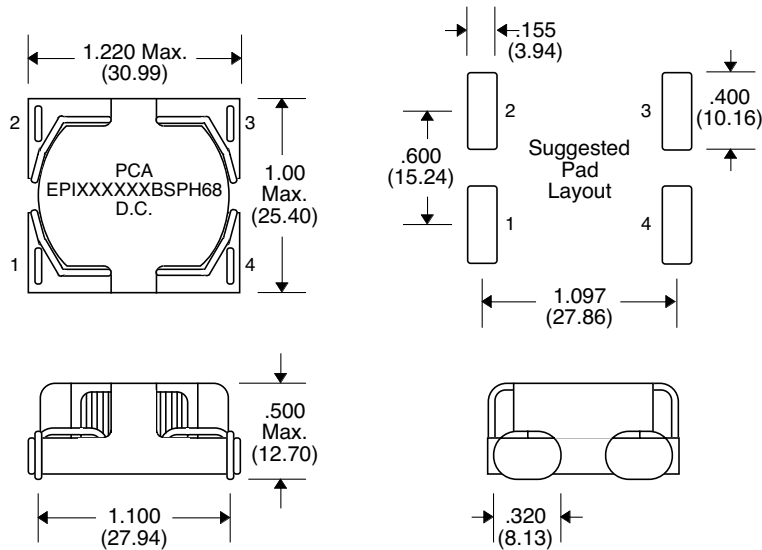
Part Number	Connection	DCR (Ω Typ.)	Idc (A)	Inductance (μH ± 15%) @ Idc	Inductance (μH ± 15%) @ Odc	Vt 1 (V-μsec.) @ 250 KHz	Vt 2 (V-μsec.) @ 500 KHz	Temp. Rise (C° Typ.)	
								@ Vt1	@ Vt2
EPI1L1383BSPH68	Series	.004	19	4.47	7.74	8.8	5.8	56	56
	Parallel	.001	38	1.1	1.94	4.4	2.9	56	56
EPI2L3273BSPH68	Series	.0090	13.5	9.12	15.8	12.4	8.2	63	63
	Parallel	.0023	27	2.3	3.95	6.2	4.1	63	63
EPI3L2243BSPH68	Series	.012	12	12.9	28.4	15.2	9.4	54	54
	Parallel	.003	24	3.2	7.1	7.6	4.7	54	54

### Schematic



**Note :** 1) Core loss at ref. Vt1 & Vt2 = 124 mW.

### Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



# Power Choke

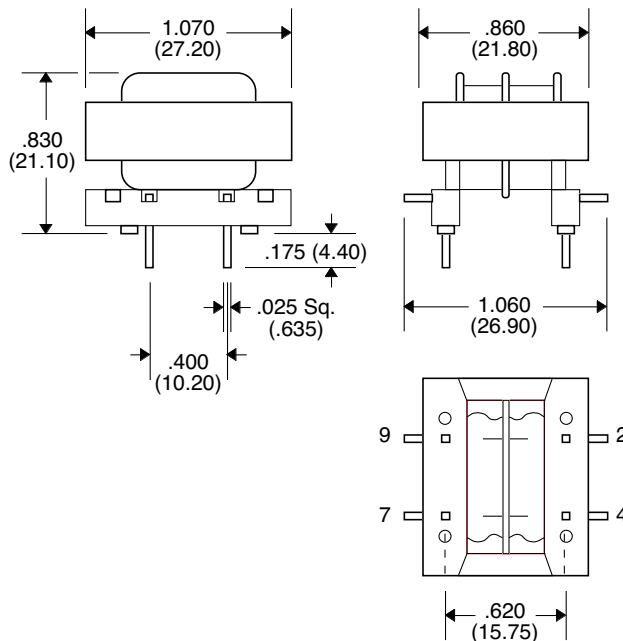
## EPZ3033-X

- Used in Power AC Line Filters, AC-AC Converters and Switching Power Supplies
- UL 94V-0 Recognized Components
- UL 1446 Class B Insulation System
- Meets or exceeds CSA/IEC/VDE/UL Specifications for Creepage, Clearance and Dielectric Strength
- 50 Hz - 500 Hz Switching Frequency
- 3750 Vrms Isolation
- In EE25 Standard Package

### Electrical Parameters @ 25° C

Part Number	Inductance (mH ± 25%) @ 1 KHz	DCR (Ω Max.)	Current Rating (Amperes Max.)	Temperature Rise (°C Max.) @ Max. Current
EPZ3033-332	3.3	.32	1.1	18
EPZ3033-392	3.9	.40	1.1	22
EPZ3033-472	4.7	.45	.88	16
EPZ3033-562	5.6	.50	.88	18
EPZ3033-682	6.8	.60	.88	21
EPZ3033-822	8.2	.70	.88	25
EPZ3033-103	10	.80	.70	18
EPZ3033-123	12	.90	.70	20
EPZ3033-153	15	1.0	.70	22
EPZ3033-183	18	1.3	.55	18
EPZ3033-223	22	1.5	.55	21
EPZ3033-273	27	1.8	.44	16
EPZ3033-333	33	2.2	.44	19
EPZ3033-393	39	2.6	.44	23
EPZ3033-473	47	2.8	.44	25
EPZ3033-563	56	4.0	.35	22
EPZ3033-683	68	5.0	.27	16
EPZ3033-104	82	5.5	.27	18
EPZ3033-124	100	6.4	.27	21
EPZ3033-222	120	7.8	.27	17
EPZ3033-154	150	9.0	.27	20

### Package



### Schematic



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

## EPI D8763 Series



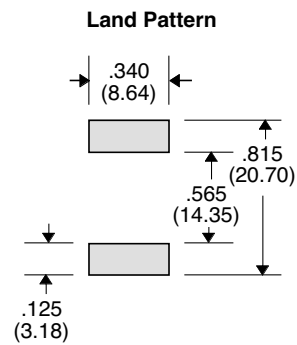
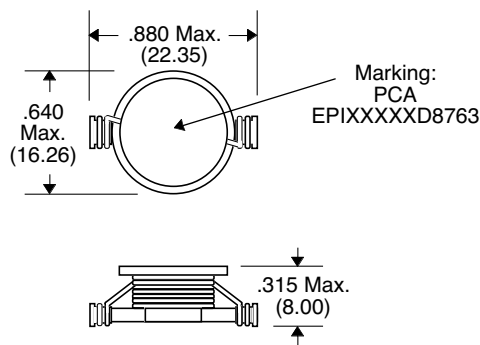
- Virtually no limit on  $V \mu\text{Sec}$  as long as max. RMS Current Limit and Temperature Rise Limit are not exceeded
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Low cost Robust construction to withstand most SMT processes
- Also suitable for use in High Quality Filter Applications
- Low Profile version for High Current Applications

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ Rated Current	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	I Sat (Amp)	I rms (Amp)
EPI0L8303D8763	.78	.78	.0026	30	15
EPI1L5253D8763	1.5	1.5	.004	25	15
EPI2L2203D8763	2.2	2.2	.0061	20	12
EPI3L3173D8763	3.3	3.3	.0086	17	10
EPI3L9153D8763	3.9	3.9	.010	15	9.0
EPI4L7133D8763	4.7	4.7	.014	13	8.4
EPI6L0123D8763	6.0	6.0	.017	12	7.5
EPI7L8113D8763	7.8	7.8	.018	11	7.5
EPI100103D8763	10	10	.026	10	6.0
EPI150802D8763	15	15	.032	8	4.4

• Operating Temperature : -40°C to +85°C •

### Package D8763



#### Notes :

1. Temperature Rise : 40°C Typ. @ I rms
2. Inductance Change at Isat: 10% Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

# Surface Mount Power Inductor

## EPI F1818 Series

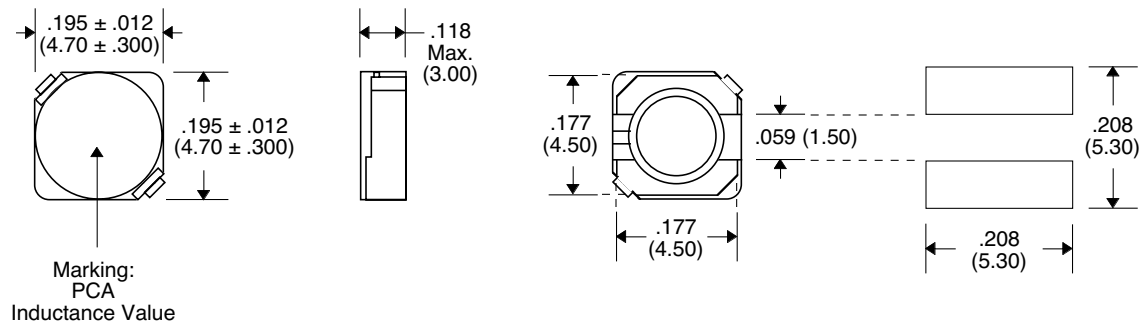
### Features of the EPI "F1818" Series

- Used in PDA's Flash Memory, Digital Cameras, Communications Equipment
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Low cost Robust construction to withstand most SMT processes
- Also suitable for use in high quality filter applications
- Operating Temperature Range : -40°C to +105°C
- Ferrite Materials

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amp.)
EPI1L2252F1818	1.2	.024	2.56
EPI1L8222F1818	1.8	.028	2.20
EPI2L2202F1818	2.2	.031	2.04
EPI2L7162F1818	2.7	.043	1.60
EPI3L3152F1818	3.3	.049	1.57
EPI3L9142F1818	3.9	.065	1.44
EPI4L7132F1818	4.7	.072	1.32
EPI5L6112F1818	5.6	.100	1.17
EPI6L8112F1818	6.8	.108	1.12
EPI8L2102F1818	8.2	.118	1.04
EPI100102F1818	10	.128	1.00
EPI150761F1818	15	.149	0.76
EPI220701F1818	22	.235	0.70
EPI330561F1818	33	.378	0.56
EPI470481F1818	47	.587	0.48
EPI560411F1818	56	.625	0.41
EPI680351F1818	68	.699	0.35
EPI820321F1818	82	.915	0.32
EPI101291F1818	100	1.02	0.29
EPI121271F1818	120	1.27	0.27
EPI151241F1818	150	1.35	0.24
EPI181221F1818	180	1.54	0.22

### Package F1818



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010$  / .25

# Surface Mount Power Inductor

## EPI F1818L Series

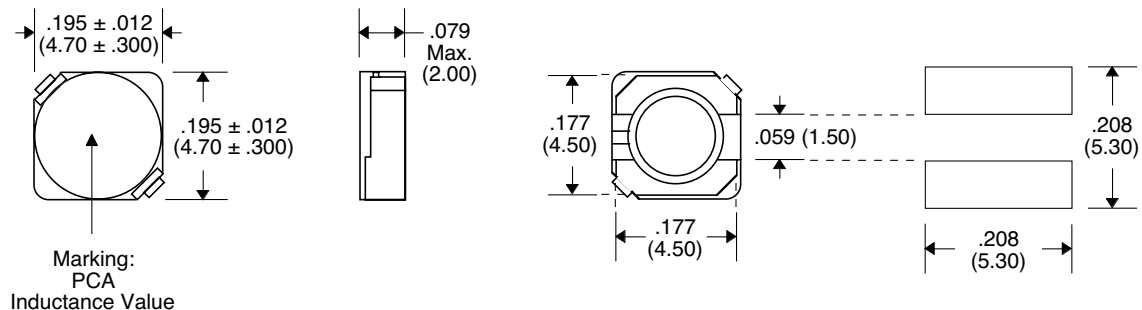
### Features of the EPI "F1818L" Series

- Used in PDA's Flash Memory, Digital Cameras, Communications Equipment
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Low cost Robust construction to withstand most SMT processes
- Also suitable for use in high quality filter applications
- Operating Temperature Range : -40°C to +105°C
- Ferrite Materials

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amp.)
EPI1L0172F1818L	1.0	.045	1.72
EPI2L2132F1818L	2.2	.075	1.32
EPI2L7122F1818L	2.7	.105	1.28
EPI3L3102F1818L	3.3	.110	1.04
EPI3L9881F1818L	3.9	.155	0.88
EPI4L7841F1818L	4.7	.162	0.84
EPI5L6801F1818L	5.6	.170	0.80
EPI6L8761F1818L	6.8	.200	0.76
EPI8L2681F1818L	8.2	.245	0.68
EPI100601F1818L	10	.200	0.61
EPI120561F1818L	12	.210	0.56
EPI150501F1818L	15	.240	0.50
EPI180481F1818L	18	.338	0.48
EPI220411F1818L	22	.397	0.41
EPI270351F1818L	27	.441	0.35
EPI330321F1818L	33	.694	0.32
EPI390301F1818L	39	.709	0.30

### Package F1818L



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI F2222 Series

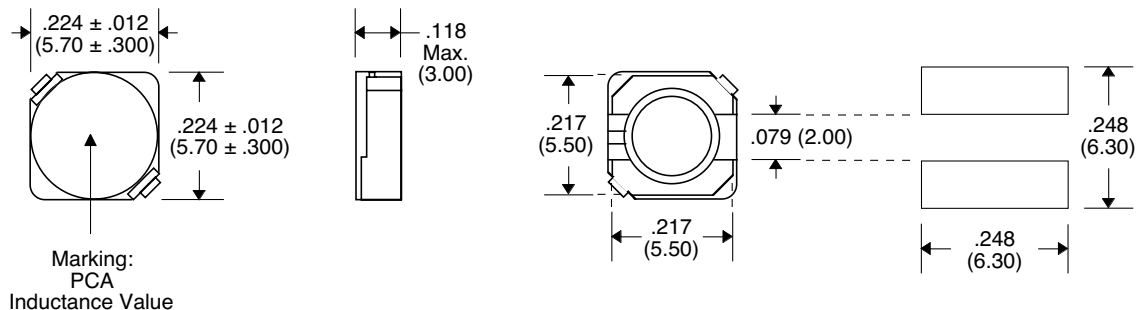
### Features of the EPI "F2222" Series

- Used in PDA's Flash Memory, Digital Cameras, Communications Equipment
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Low cost Robust construction to withstand most SMT processes
- Also suitable for use in high quality filter applications
- Operating Temperature Range : -40°C to +105°C
- Ferrite Materials

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ @ 0 Adc)	DCR ( $\Omega$ Max.)	Idc (Amp.)
EPI2L6262F2222	2.6	.018	2.6
EPI3L0242F2222	3.0	.024	2.4
EPI4L2222F2222	4.2	.031	2.2
EPI5L3192F2222	5.3	.038	1.9
EPI6L2182F2222	6.2	.045	1.8
EPI8L2162F2222	8.2	.053	1.6
EPI100132F2222	10	.065	1.3
EPI150112F2222	15	.103	1.1
EPI220901F2222	22	.122	.90
EPI330751F2222	33	.189	.75
EPI470621F2222	47	.260	.62
EPI560581F2222	56	.305	.58
EPI680521F2222	68	.355	.52
EPI820461F2222	82	.463	.46
EPI101421F2222	100	.520	.42

### Package F2222



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010$  / .25

## EPI F2626 Series

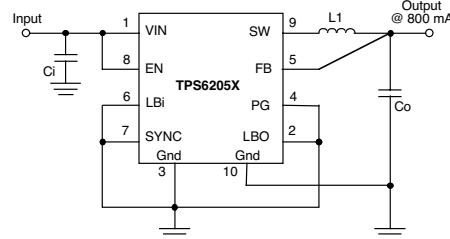
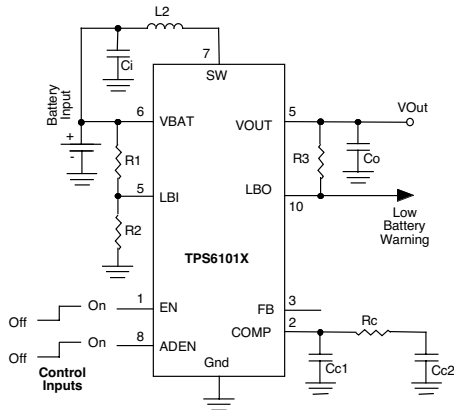


- Used in PDA's, Cell Phones, Digital Cameras, MP3 Players, Low Power CPU & DSP Supply and Organizers
- Used as an Inductor in TI TPS6205X, TPS6101X, TPS6110X and TPS6112X Series Applications
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor

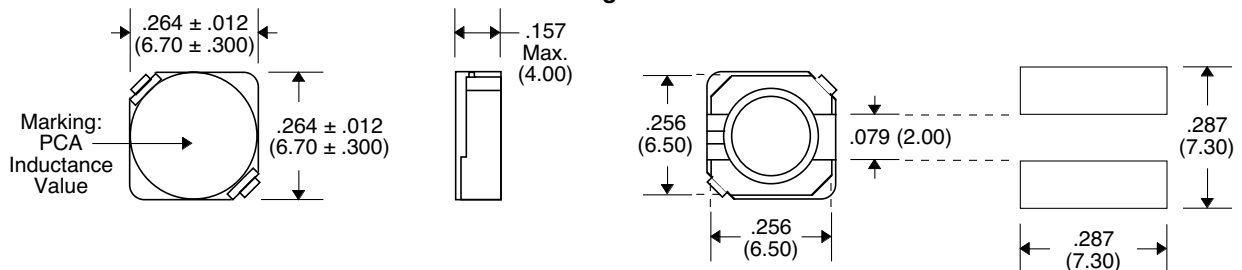
### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ @ 0 Adc)	DCR ( $\Omega$ Max.)	Idc (Amp.)
EPI3L3352F2626	3.3	.020	3.5
EPI5L0292F2626	5.0	.024	2.9
EPI6L2252F2626	6.2	.027	2.5
EPI7L4232F2626	7.4	.031	2.3
EPI8L7222F2626	8.7	.034	2.2
EPI100202F2626	10	.038	2.0
EPI150162F2626	15	.057	1.6
EPI220132F2626	22	.096	1.3
EPI330112F2626	33	.124	1.1
EPI470951F2626	47	.155	.95
EPI560851F2626	56	.202	.85
EPI680751F2626	68	.234	.75
EPI820701F2626	82	.324	.70
EPI101651F2626	100	.358	.65

### Applications

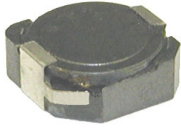


### Package F2626



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI F2626L Series

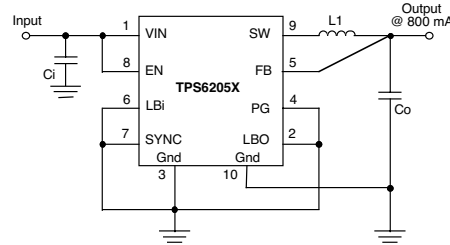
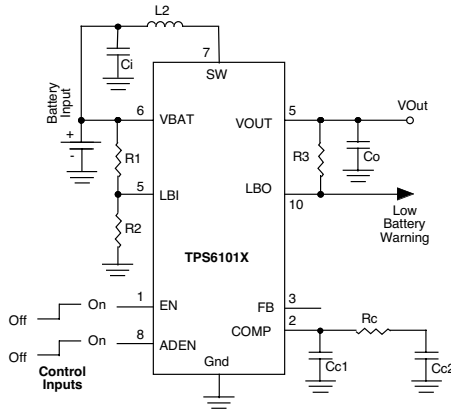


- Used in PDA's, Cell Phones, Digital Cameras, MP3 Players, Low Power CPU & DSP Supply and Organizers
- Used as an Inductor in TI TPS6205X, TPS6101X, TPS6110X and TPS6112X Series Applications
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor

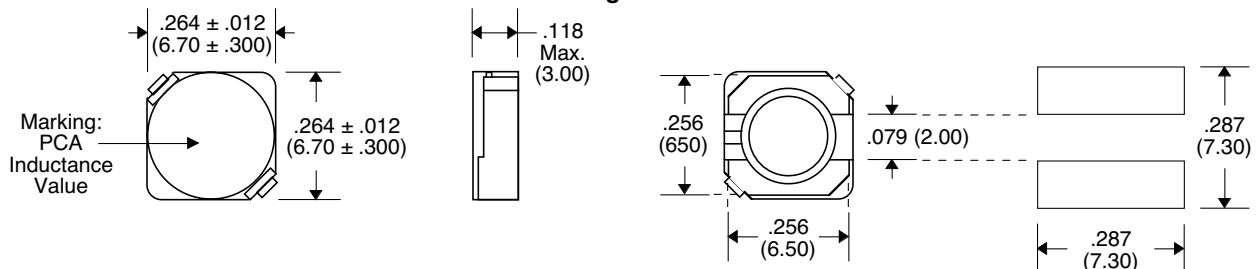
### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ @ 0 Adc)	DCR ( $\Omega$ Max.)	Idc (Amp.)
EPI3L0302F2626L	3.0	.024	3.00
EPI3L9262F2626L	3.9	.027	2.60
EPI5L0242F2626L	5.0	.031	2.40
EPI6L1222F2626L	6.1	.035	2.25
EPI7L3212F2626L	7.3	.054	2.10
EPI8L6182F2626L	8.6	.058	1.85
EPI100172F2626L	10	.065	1.70
EPI150142F2626L	15	.084	1.40
EPI220122F2626L	22	.128	1.20
EPI330971F2626L	33	.165	0.97
EPI470801F2626L	47	.238	0.80
EPI560731F2626L	56	.277	0.73
EPI680651F2626L	68	.304	0.65
EPI820601F2626L	82	.390	0.60
EPI101541F2626L	100	.535	0.54

### Applications



### Package F2626L



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI F3030 Series

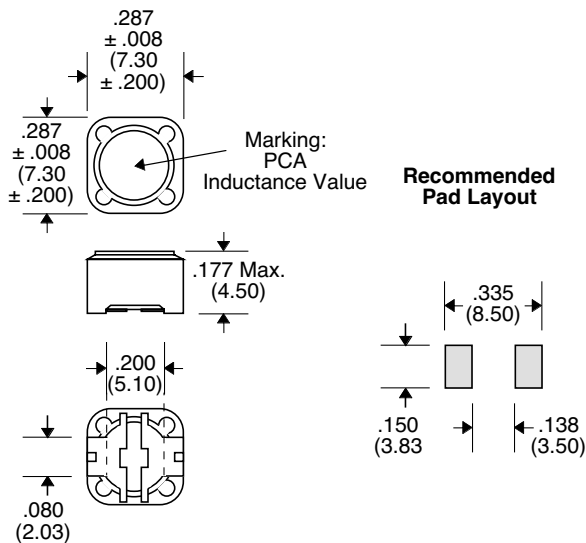


- Used in PDA's, Cell Phones, Digital Cameras, MP3 Players, Low Power CPU & DSP Supply and Organizers
- Used as an Inductor in TI TPS6205X, TPS6110X and TPS6112X Series Applications
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor

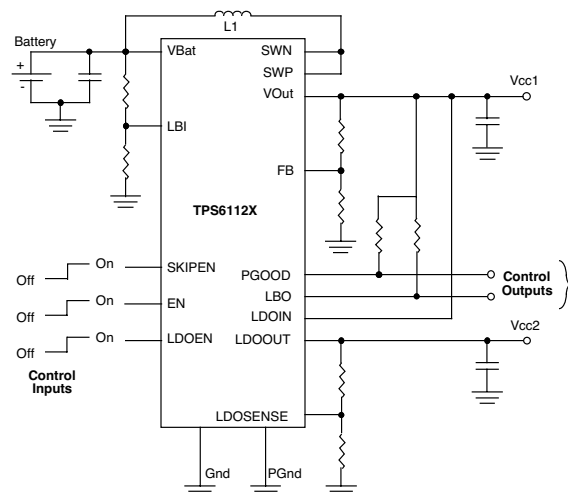
### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amp)	Isat (Amp)
EPI100182F3030	10	.049	1.84	3.17
EPI150152F3030	15	.081	1.47	2.48
EPI180132F3030	18	.091	1.31	2.22
EPI220122F3030	22	.110	1.23	2.13
EPI330961F3030	33	.170	0.96	1.73
EPI390911F3030	39	.230	0.91	1.54
EPI470881F3030	47	.260	0.88	1.41
EPI560751F3030	56	.350	0.75	1.27
EPI680691F3030	68	.380	0.69	1.19
EPI820611F3030	82	.420	0.61	1.11
EPI101601F3030	100	.610	0.60	0.99
EPI151461F3030	150	.880	0.46	0.81
EPI221361F3030	220	1.70	0.36	0.66
EPI331321F3030	330	1.86	0.32	0.54
EPI471261F3030	470	3.01	0.26	0.46
EPI561231F3030	560	3.62	0.23	0.40
EPI681221F3030	680	4.63	0.22	0.38
EPI821201F3030	820	5.20	0.20	0.35
EPI102181F3030	1000	6.00	0.18	0.31

### Package F3030



### Application



#### Note :

1. Temperature Rise : 40°C Max. @ Idc
2. Inductance Change at Idc : 10% Typ.
3. Inductance Change at Isat: 30% Approximate.

Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



## EPI F3030L Series

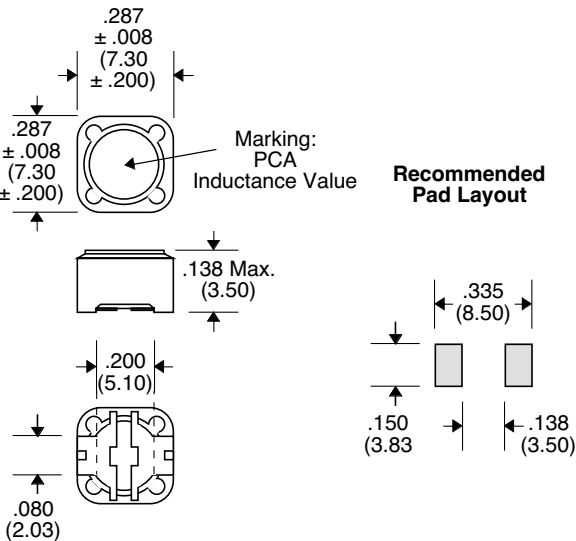


- Used in PDA's, Cell Phones, Digital Cameras, MP3 Players, Low Power CPU & DSP Supply and Organizers
- Used as an Inductor in TI TPS6205X, TPS6110X and TPS6112X Series Applications
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor

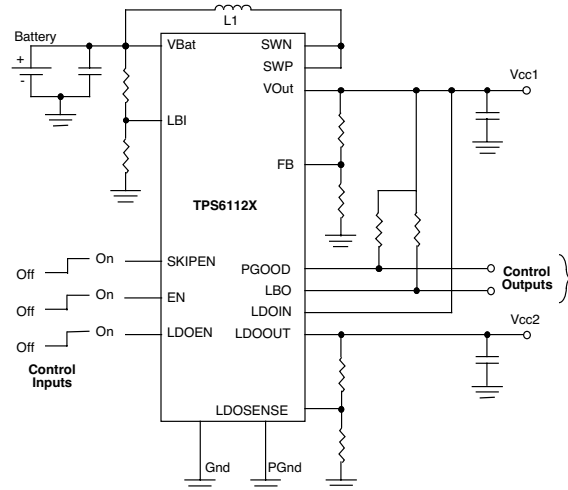
### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ @ 0 Adc)	DCR ( $\Omega$ Max.)	Idc (Amp)	Isat (Amp)
EPI100162F3030L	10	.072	1.68	2.10
EPI120152F3030L	12	.098	1.52	1.90
EPI150132F3030L	15	.130	1.33	1.66
EPI180122F3030L	18	.140	1.20	1.50
EPI220102F3030L	22	.190	1.07	1.33
EPI330911F3030L	33	.240	0.91	1.13
EPI390771F3030L	39	.320	0.77	0.96
EPI470761F3030L	47	.360	0.76	0.95
EPI560681F3030L	56	.470	0.68	0.85
EPI680611F3030L	68	.520	0.61	0.76
EPI820571F3030L	82	.690	0.57	0.71
EPI101501F3030L	100	.790	0.50	0.62
EPI121491F3030L	120	.890	0.49	0.61
EPI151431F3030L	150	1.27	0.43	0.53
EPI221351F3030L	220	1.65	0.35	0.43
EPI331281F3030L	330	2.62	0.28	0.35
EPI471241F3030L	470	4.18	0.24	0.30
EPI561221F3030L	560	4.67	0.22	0.27
EPI681191F3030L	680	5.73	0.19	0.23
EPI821181F3030L	820	6.54	0.18	0.22
EPI102161F3030L	1000	9.44	0.16	0.20

### Package F3030L



### Application

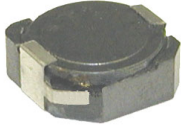


#### Note :

1. Temperature Rise : 40°C Max. @ Idc
2. Inductance Change at Idc : 20% Typ.
3. Inductance Change at Isat: 35% Approximate.

Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

## EPI F4040 Series

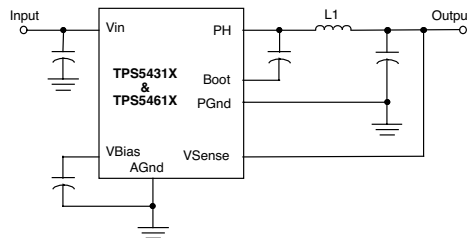


- Used as an Inductor in TI TPS6103X Series, Single Cell or Dual Cell Boost Converters
- Used as an Inductor in TI's TPS5431X & TPS5461X Series Synchronous Buck Switcher with Integrated FET (Swift) Application
- Used in PDA's Flash Memory, Digital Cameras, MP3 Players & other Portable Equipment
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor

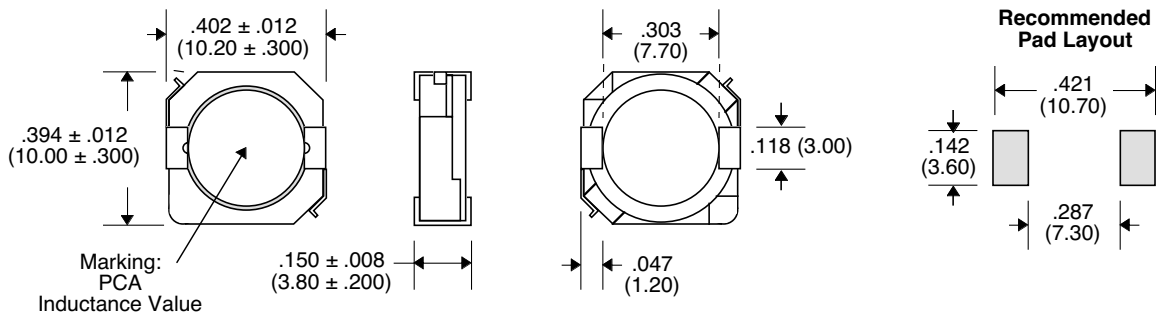
### Primary Specification

Part Number	Inductance ( $\mu$ H) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amp)
EPI1L5103F4040	1.5 $\pm$ 30%	.0081	10
EPI2L5752F4040	2.5 $\pm$ 30%	.010	7.5
EPI3L8602F4040	3.8 $\pm$ 30%	.013	6.0
EPI5L2552F4040	5.2 $\pm$ 30%	.022	5.5
EPI7L0482F4040	7.0 $\pm$ 30%	.027	4.8
EPI100442F4040	10 $\pm$ 20%	.035	4.4
EPI150362F4040	15 $\pm$ 20%	.050	3.6
EPI220292F4040	22 $\pm$ 20%	.073	2.9
EPI330232F4040	33 $\pm$ 20%	.093	2.3
EPI470212F4040	47 $\pm$ 20%	.128	2.1
EPI680152F4040	68 $\pm$ 20%	.213	1.5
EPI101132F4040	100 $\pm$ 20%	.304	1.35
EPI151112F4040	150 $\pm$ 20%	.506	1.15
EPI221921F4040	220 $\pm$ 20%	.756	0.92
EPI331701F4040	330 $\pm$ 20%	1.09	0.70

### Application



### Package F4040



#### Notes :

1. Temperature Rise : 40°C Max. @ Idc
2. Inductance Change at Idc : 35% Approximate.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm$  .010 / .25

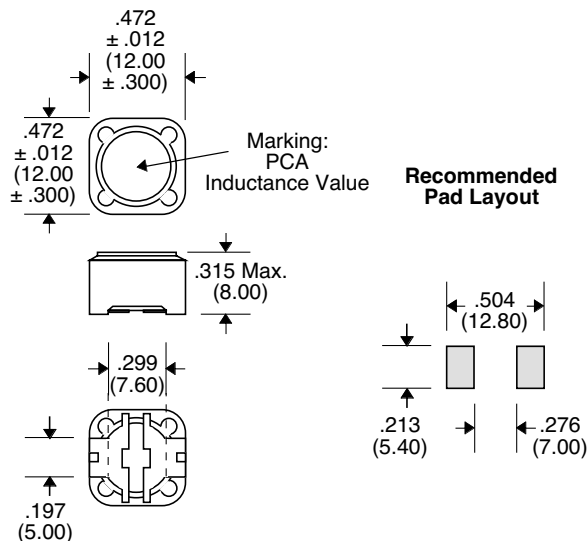
## EPI F4747 Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in High Quality Filter Applications
- Low Profile version for High Current Applications

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amp)
EPI100542F4747	10	.022	5.40
EPI150452F4747	15	.027	4.50
EPI180392F4747	18	.040	3.90
EPI220362F4747	22	.044	3.60
EPI330302F4747	33	.065	3.00
EPI390272F4747	39	.073	2.75
EPI470252F4747	47	0.10	2.50
EPI560232F4747	56	0.11	2.35
EPI680212F4747	68	0.14	2.10
EPI820192F4747	82	0.16	1.95
EPI101172F4747	100	0.22	1.70
EPI151142F4747	150	0.28	1.42
EPI221112F4747	220	0.39	1.16
EPI331951F4747	330	0.64	0.95
EPI471791F4747	470	0.98	0.79
EPI561731F4747	560	1.07	0.73
EPI681671F4747	680	1.46	0.67
EPI821601F4747	820	1.64	0.60
EPI102551F4747	1000	1.82	0.55

### Package F4747



**Note :**

1. Temperature Rise : 40°C Max. @ Idc
2. Inductance Change at Idc : 10% Approximate.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI F4747L Series

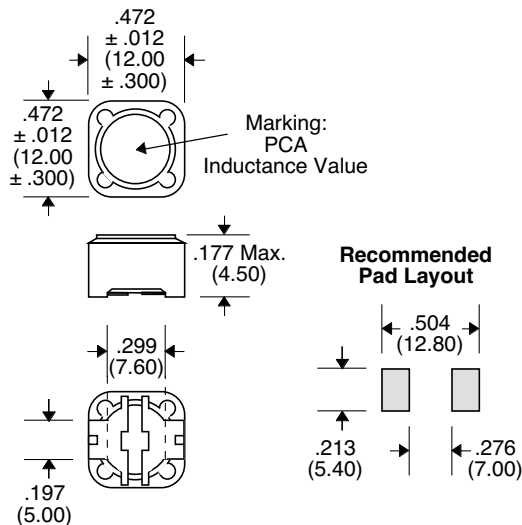


- Used as an Inductor in TI TPS6103X Series, Single Cell or Dual Cell Boost Converters
- Used in PDA's, MP3 Players, Camcorders, & other Portable Communication Equip.
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- High Current Application
- Low Profile Version

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amp)
EPI100402F4747L	10	.025	4.0
EPI150332F4747L	15	.030	3.3
EPI180302F4747L	18	.034	3.0
EPI220282F4747L	22	.036	2.8
EPI330212F4747L	33	.068	2.1
EPI390202F4747L	39	.073	2.0
EPI470182F4747L	47	.075	1.8
EPI560172F4747L	56	.110	1.7
EPI680152F4747L	68	.120	1.5
EPI820142F4747L	82	.140	1.4
EPI101132F4747L	100	.160	1.3
EPI151102F4747L	150	.230	1.0
EPI221801F4747L	220	.400	.80
EPI331681F4747L	330	.570	.68
EPI471581F4747L	470	.770	.58
EPI561541F4747L	560	.860	.54
EPI681481F4747L	680	1.20	.48
EPI821431F4747L	820	1.34	.43
EPI102401F4747L	1000	1.53	.40

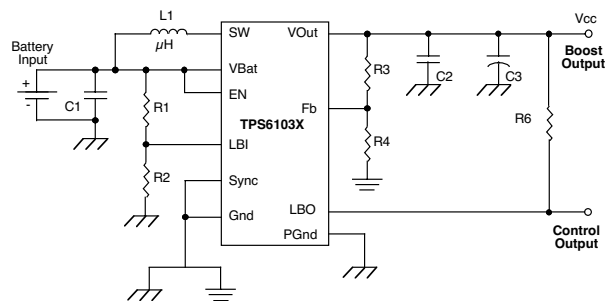
### Package F4747L



#### Note :

1. Temperature Rise : 40°C Max. @ Idc
2. Inductance Change at Idc : 10% Approximate.

### Application



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI F4747LP Series

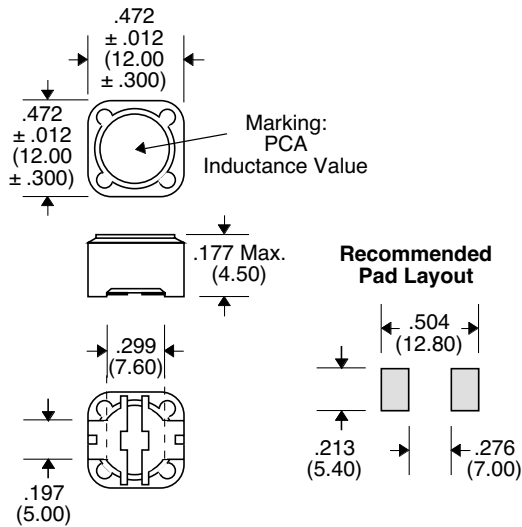


- Used as an Inductor in TI TPS6103X Series, Single Cell or Dual Cell Boost Converters
- Used in PDA's, MP3 Players, Camcorders, & other Portable Communication Equip.
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- High Current Application
- Low Profile Version

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amp)
EPI3L9652F4747LP	3.9	.015	6.50
EPI4L7572F4747LP	4.7	.018	5.70
EPI6L8492F4747LP	6.8	.023	4.90
EPI8L2462F4747LP	8.2	.026	4.60
EPI100452F4747LP	10	.028	4.50
EPI120402F4747LP	12	.038	4.00
EPI150322F4747LP	15	.050	3.20
EPI180312F4747LP	18	.057	3.10
EPI220292F4747LP	22	.066	2.90
EPI270282F4747LP	27	.080	2.80
EPI330272F4747LP	33	.097	2.70
EPI390212F4747LP	39	.132	2.10
EPI470192F4747LP	47	.150	1.90
EPI560182F4747LP	56	.190	1.80
EPI680152F4747LP	68	.220	1.50
EPI820132F4747LP	82	.260	1.30
EPI101122F4747LP	100	.308	1.20
EPI121112F4747LP	120	.380	1.10
EPI151951F4747LP	150	.530	0.95
EPI181851F4747LP	180	.620	0.85
EPI221801F4747LP	220	.700	0.80
EPI271601F4747LP	270	.870	0.60
EPI331501F4747LP	330	.990	0.50

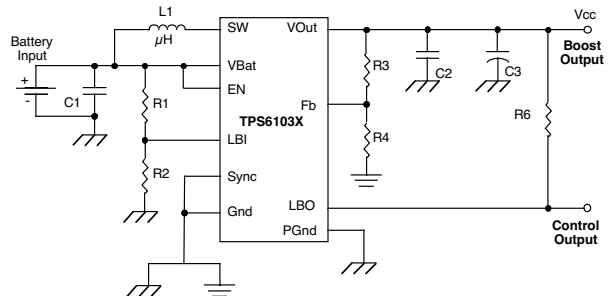
### Package F4747LP



**Note :**

1. Temperature Rise : 40°C Max. @ Idc
2. Inductance Change at Idc : 10% Approximate.

### Application



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

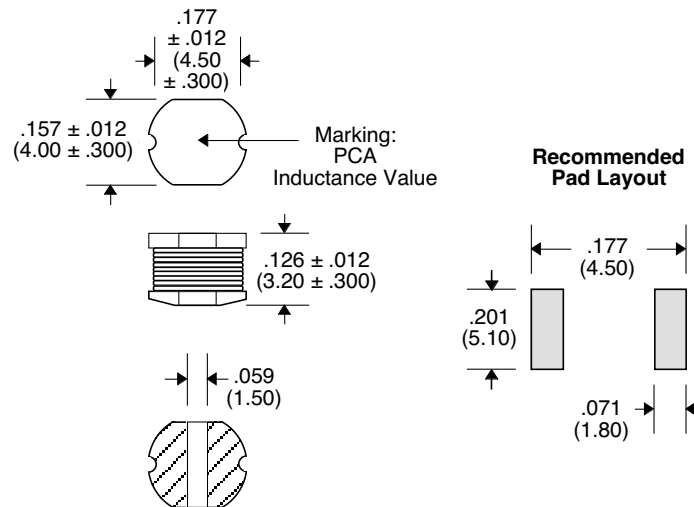
## EPI G1816 Series

- Used in Camcorders, LCD TV's, Car Radios, Communications Equipment
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Low cost Robust construction to withstand most SMT processes
- Also suitable for use in high quality filter applications
- Operating Temperature Range : -40°C to +105°C
- Ferrite Materials

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 10\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amps Max.)
EPI1L0252G1816	1.0	.049	2.56
EPI1L4252G1816	1.4	.057	2.52
EPI1L8192G1816	1.8	.064	1.95
EPI2L2172G1816	2.2	.072	1.75
EPI2L7152G1816	2.7	.079	1.58
EPI3L3142G1816	3.3	.087	1.44
EPI3L9132G1816	3.9	.094	1.33
EPI4L7112G1816	4.7	.109	1.15
EPI5L6991G1816	5.6	.126	0.99
EPI6L8951G1816	6.8	.132	0.95
EPI8L2841G1816	8.2	.147	0.84
EPI100102G1816	10	.182	1.04
EPI120971G1816	12	.210	0.97
EPI150851G1816	15	.235	0.85
EPI180741G1816	18	.338	0.74
EPI220681G1816	22	.378	0.68
EPI270621G1816	27	.522	0.62
EPI330561G1816	33	.540	0.56
EPI390521G1816	39	.587	0.52
EPI470441G1816	47	.844	0.44
EPI560421G1816	56	.937	0.42
EPI680371G1816	68	1.117	0.37

### Package G1816



**Note :**

1. Temperature Rise : 40°C Typ. @ Idc
2. Inductance Change at I Saturation : 10% TYP.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

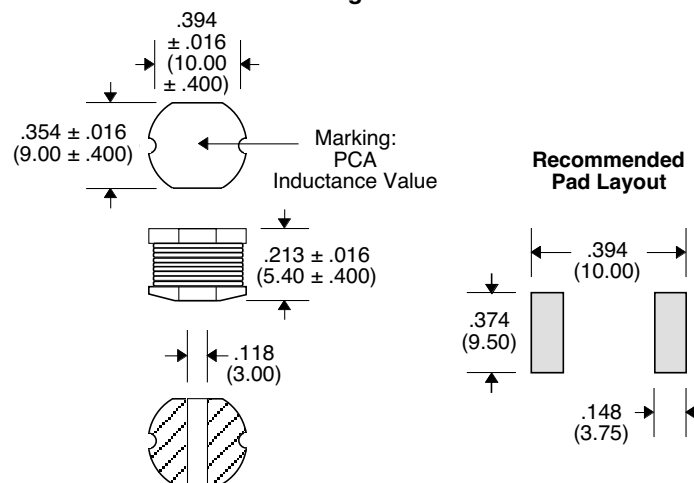
### Features of the EPI "G4036" Series

- Used in Camcorders, LCD TV's, Car Radios, Communications Equipment
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Low cost Robust construction to withstand most SMT processes
- Also suitable for use in high quality filter applications
- Operating Temperature Range : -40°C to +105°C
- Ferrite Materials

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 10\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amps Max.)
EPI100262G4036	10	.060	2.60
EPI120242G4036	12	.070	2.45
EPI150222G4036	15	.080	2.27
EPI180212G4036	18	.090	2.15
EPI220192G4036	22	.100	1.95
EPI270172G4036	27	.110	1.76
EPI330152G4036	33	.120	1.50
EPI390122G4036	39	.140	1.37
EPI470132G4036	47	.170	1.28
EPI560112G4036	56	.190	1.17
EPI680112G4036	68	.220	1.11
EPI820102G4036	82	.250	1.00
EPI101971G4036	100	.350	0.97
EPI121891G4036	120	.400	0.89
EPI151781G4036	150	.470	0.78
EPI181721G4036	180	.630	0.72
EPI221661G4036	220	.730	0.66
EPI271571G4036	270	.970	0.57
EPI331521G4036	330	1.15	0.52
EPI391481G4036	390	1.30	0.48
EPI471421G4036	470	1.48	0.42
EPI561331G4036	560	1.90	0.33
EPI681281G4036	680	2.25	0.28
EPI821241G4036	820	2.55	0.24
EPI102221G4036	1000	2.75	0.22
EPI822500G4036	8200	26	.050

### Package G4036



Note :

1. Temperature Rise : 40°C Typ. @ Idc
2. Inductance Change at I Saturation : 10% TYP.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

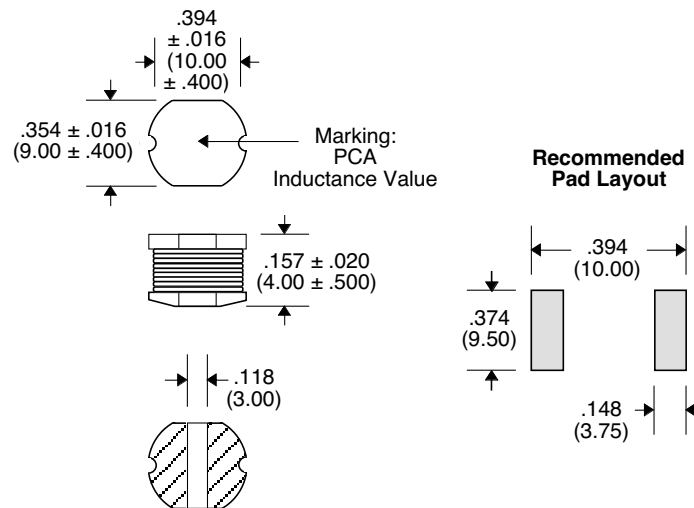
### Features of the EPI "G4036L" Series

- Used in Camcorders, LCD TV's, Car Radios, Communications Equipment
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Low cost Robust construction to withstand most SMT processes
- Also suitable for use in high quality filter applications
- Operating Temperature Range : -40°C to +105°C
- Ferrite Materials

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 10\%$ ) @ 0 Adc	DCR ( $\Omega$ Max.)	Idc (Amps Max.)
EPI100232G4036L	10	.053	2.38
EPI120212G4036L	12	.061	2.13
EPI150182G4036L	15	.070	1.87
EPI180172G4036L	18	.081	1.73
EPI220162G4036L	22	.088	1.60
EPI270142G4036L	27	.100	1.44
EPI330122G4036L	33	.120	1.26
EPI390122G4036L	39	.151	1.20
EPI470112G4036L	47	.170	1.10
EPI560102G4036L	56	.199	1.01
EPI680911G4036L	68	.233	0.91
EPI820851G4036L	82	.252	0.85
EPI101741G4036L	100	.344	0.74
EPI1151611G4036L	150	.544	0.61
EPI181561G4036L	180	.621	0.56
EPI221531G4036L	220	.721	0.53
EPI271451G4036L	270	.949	0.45
EPI331421G4036L	330	1.10	0.42
EPI391381G4036L	390	1.245	0.38
EPI471351G4036L	470	1.526	0.35
EPI561321G4036L	560	1.904	0.32

### Package G4036L



**Note :**

1. Temperature Rise : 40°C Typ. @ Idc
2. Inductance Change at I Saturation : 10% TYP.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010$  /.25



## EPI KSP45 Series

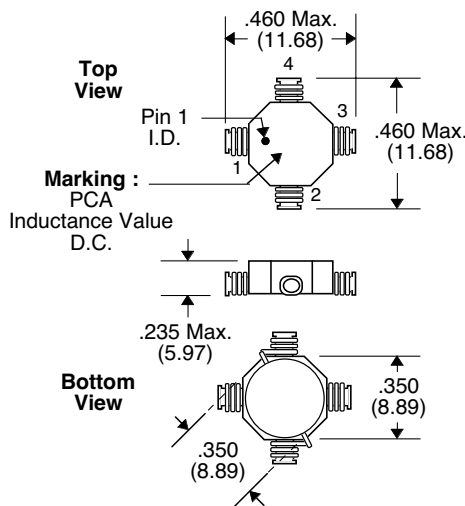
### Features of the EPI "KSP45" Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications and as a Coupled Inductor
- Low cost Robust construction to withstand most SMT processes

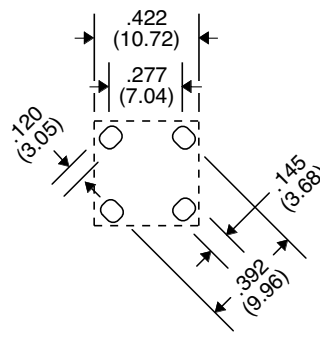
### Primary Specification

Part Number	Connection	Inductance ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	Inductance ( $\mu\text{H} \text{ Min.}$ ) @ Idc	DCR ( $\Omega \text{ Max.}$ )	I dc (Amps)
EPI0L4592KSP45	Series	2.2	1.6	.024	2.95
EPI0L6542KSP45	Parallel	0.55	0.4	.006	5.90
	Series	3.4	2.4	.029	2.70
EPI0L8502KSP45	Parallel	0.85	0.6	.007	5.40
	Series	4.8	3.2	.033	2.50
EPI1L5392KSP45	Series	1.2	0.8	.008	5.00
	Parallel	8.8	6.0	.055	1.95
EPI3L5252KSP45	Series	2.2	1.5	.014	3.90
	Parallel	19.6	14	.128	1.25
EPI5L3232KSP45	Series	4.9	3.5	.032	2.50
	Parallel	30.4	21.2	.158	1.15
EPI6L7212KSP45	Series	7.6	5.3	.040	2.30
	Parallel	39.2	26.8	.179	1.05
EPI100162KSP45	Series	9.8	6.7	.045	2.10
	Parallel	60.0	40	.339	0.80
EPI130152KSP45	Series	15.0	10	.085	1.60
	Parallel	78.4	52	.387	0.75
	Parallel	19.6	13	.097	1.50

### Package KSP45



### Schematic



- Notes :**
1. Temperature Rise : 40°C Max. @ Idc
  2. Inductance Change at Idc : 40% Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI KSP45L Series

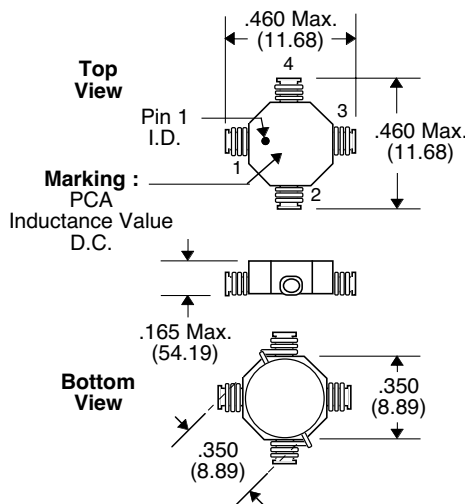
### Features of the EPI "KSP45L" Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications and as a Coupled Inductor
- Low cost Robust construction to withstand most SMT processes

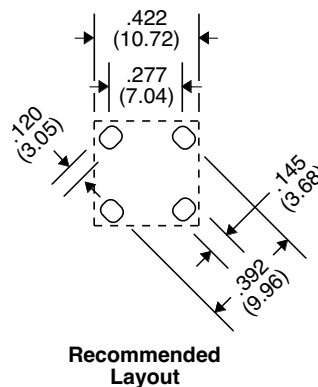
### Primary Specification

Part Number	Connection	Inductance ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	Inductance ( $\mu\text{H} \text{ Min.}$ ) @ Idc	DCR ( $\Omega \text{ Max.}$ )	I dc (Amps)
EPI0L3552KSP45L	Series	1.6	1.2	.024	2.75
	Parallel	.40	0.3	.006	5.5
EPI0L4512KSP45L	Series	2.4	1.6	.028	2.55
	Parallel	.60	0.4	.007	5.1
EPI0L7452KSP45L	Series	4.4	2.8	.032	2.25
	Parallel	1.1	0.7	.008	4.5
EPI1L3342KSP45L	Series	8.0	5.2	.056	1.7
	Parallel	2.0	1.3	.014	3.4
EPI3L3202KSP45L	Series	19.2	13.2	.164	1.0
	Parallel	4.8	3.3	.041	2.0
EPI5L3182KSP45L	Series	32.4	21.2	.208	0.90
	Parallel	8.1	5.3	.052	1.8
EPI6L2172KSP45L	Series	38.4	24.8	.228	0.85
	Parallel	9.6	6.2	.057	1.7
EPI9L6142KSP45L	Series	60	38.4	.348	0.70
	Parallel	15.0	9.6	.087	1.4
EPI140102KSP45L	Series	82	56.0	.636	0.50
	Parallel	20.5	14.0	.159	1.0

### Package KSP45L



### Schematic



- Notes :**
1. Temperature Rise : 40°C Max. @ Idc
  2. Inductance Change at Idc : 40% Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI KSP56 Series

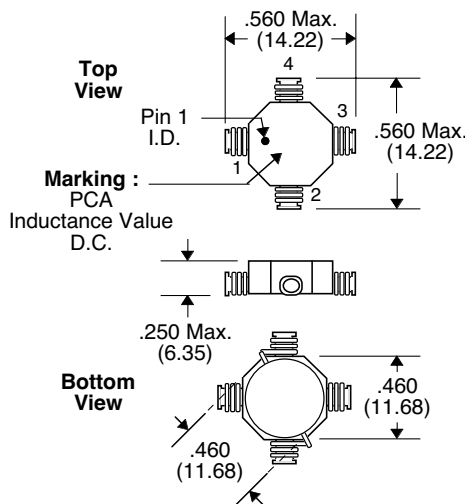
### Features of the EPI "KSP56" Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications and as a Coupled Inductor
- Low cost Robust construction to withstand most SMT processes

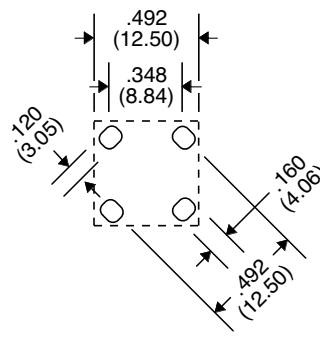
### Primary Specification

Part Number	Connection	Inductance ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	Inductance ( $\mu\text{H Min.}$ ) @ Idc	DCR ( $\Omega$ Max.)	I dc (Amps)
EPI0L3702KSP56	Series	1.76	1.2	.016	3.5
	Parallel	0.44	.30	.004	7.0
EPI0L5602KSP56	Series	3.10	2.0	.020	3.0
	Parallel	0.78	.50	.005	6.0
EPI0L8502KSP56	Series	4.80	3.2	.024	2.5
	Parallel	1.20	.80	.006	5.0
EPI1L1492KSP56	Series	7.00	4.4	.028	2.45
	Parallel	1.76	1.1	.007	4.9
EPI2L6442KSP56	Series	19.6	10.4	.056	2.2
	Parallel	4.90	2.6	.014	4.4
EPI4L3352KSP56	Series	33.2	17.2	.076	1.75
	Parallel	8.30	4.3	.019	3.5
EPI4L8342KSP56	Series	38.4	19.2	.080	1.7
	Parallel	9.60	4.8	.020	3.4
EPI6L8302KSP56	Series	56.8	27.2	.096	1.5
	Parallel	14.2	6.8	.024	3.0
EPI100212KSP56	Series	78.4	40.0	.220	1.05
	Parallel	19.6	10.0	.055	2.1

### Package KSP56



### Schematic



- Notes :**
1. Temperature Rise : 40°C Max. @ Idc
  2. Inductance Change at Idc : 40% Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$



## Contents Thru Hole Power Inductor Series

PCA Part No.	Inductance ( $\mu$ H)	DCR ( $\Omega$ Max.)	IDC (A)	Inductance	L	W	H
EPI-A106 Toroid Series	.85 - 1000	.0005 - .88	1.20 - 43	.7 - 800	1.40	1.40	.500
EPI-A38HM Toroid Series	9.6 - 19.6	.14 - 13.5	3.2 - 4.7	6.7 - 13.5	.535	.449	.449
EPI-AC1 Toroid Series	13.5 - 20	.022 - .035	3.5 - 4.5	10 - 15	.590	.360	.715
EPI-AC2 Toroid Series	12.8 - 27	.012 - .046	3.0 - 5.0	10 - 22	.680	.470	.750
EPI-AC3 Toroid Series	27 - 265	.025 - .394	1.5 - 5.0	22 - 220	.840	.470	.950
EPI-AC4 Toroid Series	42 - 493	.027 - 7.54	1.0 - 5.5	33 - 470	.960	.610	1.35
EPI-AC5 Toroid Series	260 - 1093	.090 - .297	.95 - 3.0	220 - 1000	1.30	.700	1.40
EPI-AH50 Toroid Series	220 - 1216	.21 - 1.20	.5 - 1.7	150 - 1000	.710	.710	.460
EPI-AV50 Toroid Series	220 - 1216	.21 - 1.20	.5 - 1.7	150 - 1000	.710	.510	.710
EPI-AVM1 Toroid Series	50 - 152	.54 - .124	2.1 - 2.6	35 - 105	.772	.425	.952
EPI-AVM2 Toroid Series	9 - 500	.0066 - .419	1.0 - 8.7	6.7 - 413	1.25	.625	1.185
EPI-AVM3 Toroid Series	10 - 1028	.006 - .810	1.0 - 11.4	7 - 880	1.35	.825	1.36
EPI-RL30 Drum Series	1 - 10000	.013 - 33	.084 - 10	1 - 10000	.307	.307	.295

## EPI A106 Series

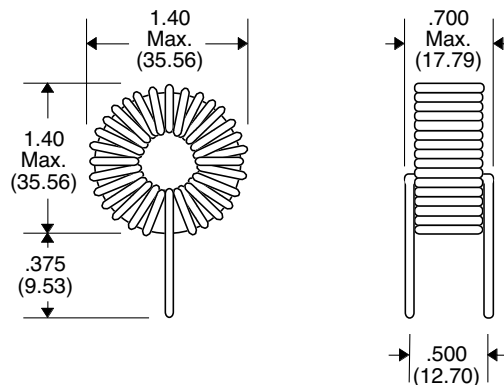
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- Max. Temperature Rise of 40°C
- Low Cost Inductor

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	I Saturation (Amperes)	I rms (Amperes)	Vt (V- $\mu\text{sec}$ )	Temp.Rise Isat °C (Max.)	Lead Diameter (inch/mm)
EPI0L8433A106	.85	.0005	43	40	10	35.0	.102/2.59
EPI1L5323A106	1.5	.0011	32	30	16	38.03	.081/2.06
EPI2L2263A106	2.2	.0013	26	25	20	5.0	.081/2.06
EPI3L3213A106	3.3	.002	21	20	25	35.0	.072/1.83
EPI4L7183A106	4.7	.003	18	18	30	36.0	.064/1.63
EPI6L0163A106	6.0	.005	16	15	32	40.0	.057/1.45
EPI9L5133A106	9.5	.006	13	12	40	37.0	.057/1.45
EPI150103A106	15	.007	10	10	50	32.0	.057/1.45
EPI200862A106	20	.010	8.6	8.6	60	33.0	.051/1.30
EPI330682A106	33	.013	6.8	6.8	80	31.0	.051/1.30
EPI470592A106	47	.015	5.9	5.9	90	30.0	.051/1.30
EPI550542A106	55	.016	5.4	5.4	100	29.0	.051/1.30
EPI680482A106	68	.02	4.8	4.8	110	29.0	.051/1.30
EPI101392A106	100	.04	3.9	3.9	130	31.0	.040/1.02
EPI151322A106	150	.06	3.2	3.2	160	31.0	.036/9.10
EPI221272A106	220	.12	2.7	2.7	200	34.0	.029/7.40
EPI281242A106	280	.14	2.4	2.4	220	34.0	.025/6.40
EPI331222A106	330	.16	2.2	2.2	240	33.0	.025/6.40
EPI471182A106	470	.30	1.8	1.8	290	38.0	.020/5.10
EPI681152A106	680	.46	1.5	1.5	340	37.0	.018/4.60
EPI102122A106	1000	.88	1.20	1.2	400	40.0	.016/4.10

• Core Loss at Ref. Vt: 1.28 Watts • Inductance Change @ Isat : 20% Max. •

### Package



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

# Thru-Hole Power Inductor EPI A38HM Series

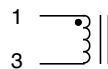
## Features of the EPI "A38HM" Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- Up to 500 KHz Switching Frequency
- UL 1446 Class B Insulation System
- UL 94V-0 Recognized Material
- In Header Mount Package
- Low Cost Inductor

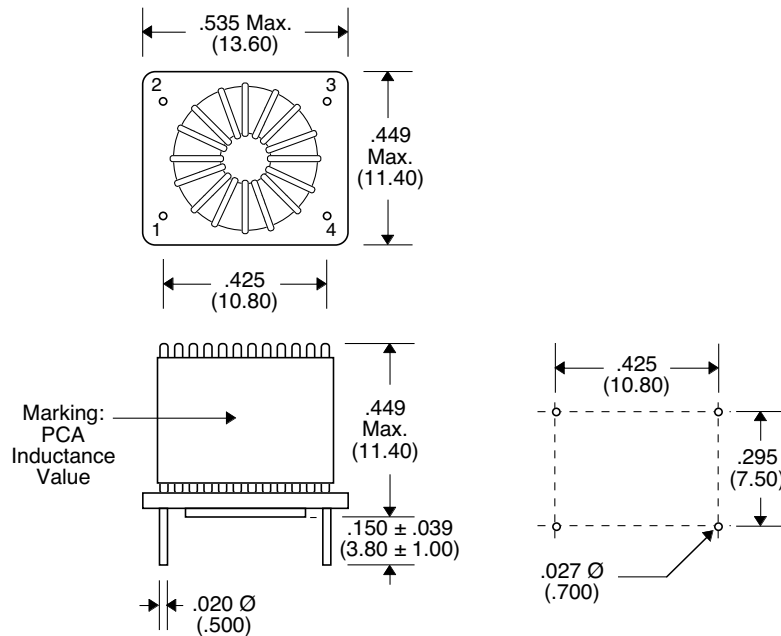
### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	Induct. ( $\mu\text{H} \pm 15\%$ ) @ I Sat	DCR ( $\Omega$ Typ.)	I <sub>dc</sub> (mA)	I Sat (mA)	Core Loss @ Vt (mW)	Vt (V- $\mu\text{Sec.}$ ) @ 100 KHz	Energy ( $\mu\text{J}$ ) @ I Sat	Temp. Rise @ I <sub>dc</sub> (°C)
EPI100452A38HM	9.6	6.7	.014	4700	4500	32.3	6.6	67.1	35
EPI200322A38HM	19.6	13.5	.032	3200	3200	32.3	9.4	69	39

### Schematic



### Package A38HM



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

## EPI AC1 Series



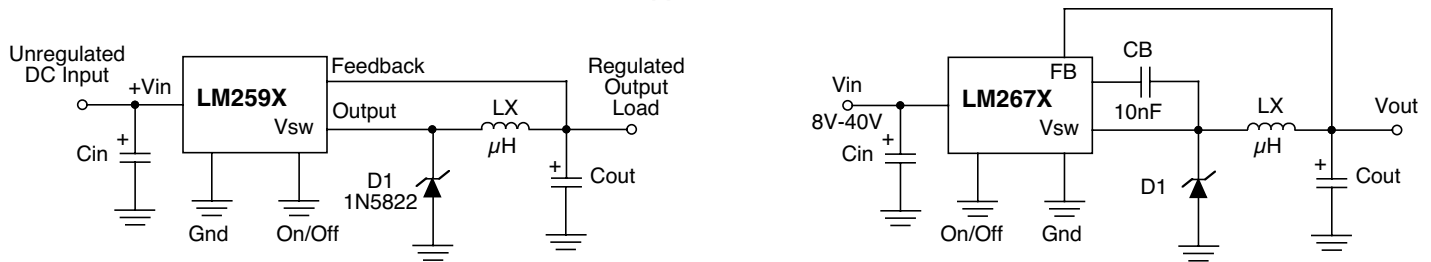
- Optimized for National's LM267X & LM259X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 150 KHz & 260 KHz Switching Frequency
- Low Cost Inductor

### Primary Specification

Part Number	National Semiconductor Chip	Induct. ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 10\%$ ) @ I <sub>dc</sub>	I <sub>dc</sub> (mA)	Core Loss		V <sub>t1</sub> (V- $\mu\text{Sec}$ ) 150 KHz	V <sub>t2</sub> (V- $\mu\text{Sec}$ ) 260 KHz	Temp.Rise	
						@ V <sub>t1</sub> (mW)	@ V <sub>t2</sub> (mW)			@ V <sub>t1</sub> °C (Typ.)	@ V <sub>t2</sub> °C (Typ.)
EPI100452AC1	LM267X-L45	13.5	0.022	10	4500	---	55	---	7.2	---	45
EPI150352AC1	LM267X-L34	20.0	0.035	15	3500	---	55	---	8.7	---	43
EPI150352AC1	LM259X-L34	20.0	0.035	15	3500	55	---	12.7	---	43	---

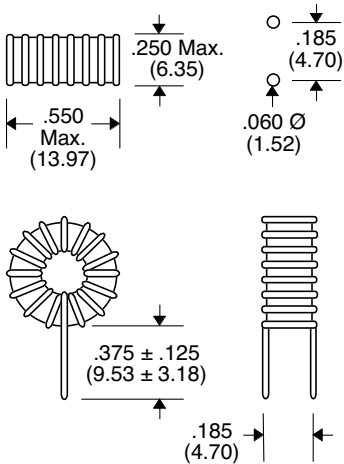
For no header version : add "V" for Vertical Mount and add "H" for Horizontal Mount

### Applications



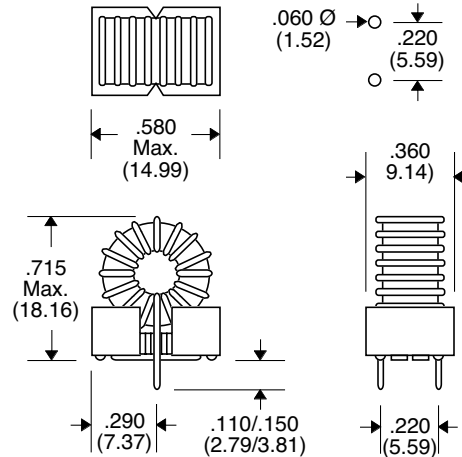
### Package AC1V

Pad Layout



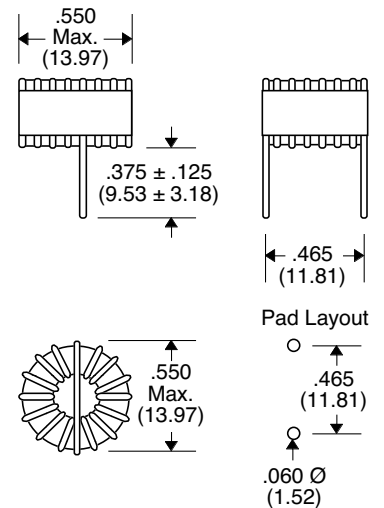
### Package AC1

Pad Layout



### Package AC1H

Pad Layout



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI AC2 Series



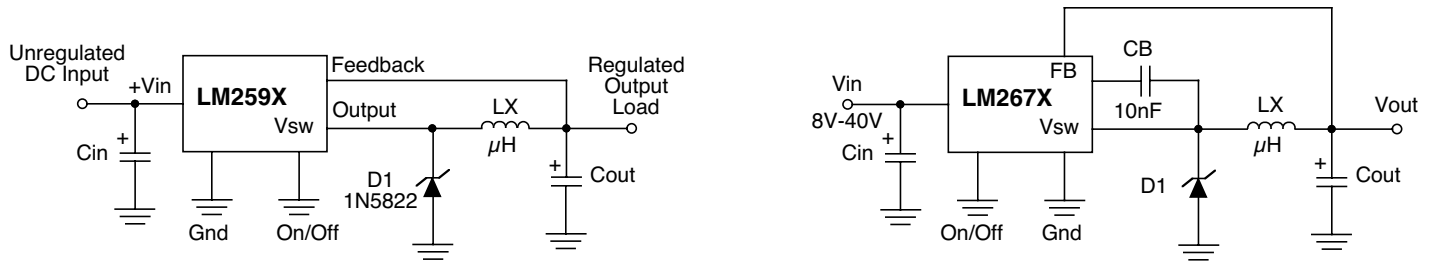
- Optimized for National's LM267X & LM259X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 150 KHz & 260 KHz Switching Frequency
- Low Cost Inductor

### Primary Specification

Part Number	National Semiconductor Chip	Induct. ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 10\%$ ) @ Idc	Idc (mA)	Core Loss		Vt1 (V- $\mu\text{Sec}$ ) 150 KHz	Vt2 (V- $\mu\text{Sec}$ ) 260 KHz	Temp.Rise	
						@ Vt1 (mW)	@ Vt2 (mW)			@ Vt1 $^{\circ}\text{C}$ (Typ.)	@ Vt2 $^{\circ}\text{C}$ (Typ.)
EPI100502AC2	LM267X-L47	12.8	0.012	10	5000	---	275	---	15.4	---	36
EPI150502AC2	LM267X-L46	20	0.019	15	5000	---	275	---	19.3	---	45
EPI220302AC2	LM259X-L41	27	0.046	22	3000	105	---	20.0	---	33	---

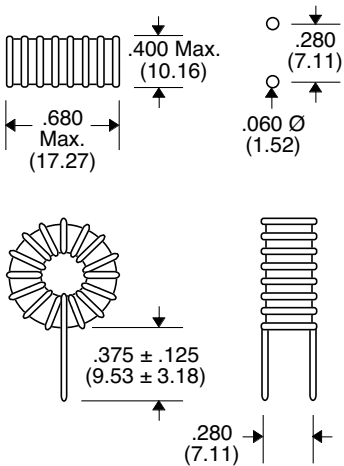
For no header version : add "V" for Vertical Mount and add "H" for Horizontal Mount

### Applications



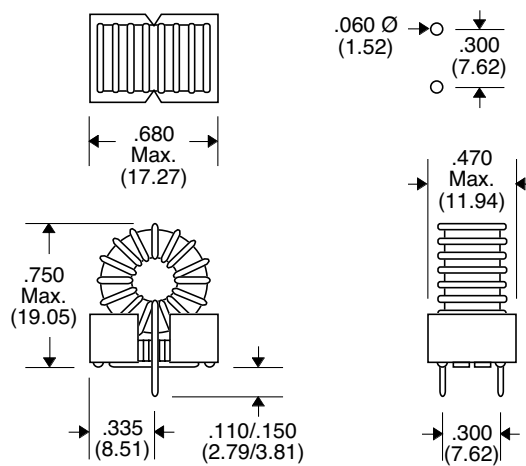
### Package AC2V

#### Pad Layout



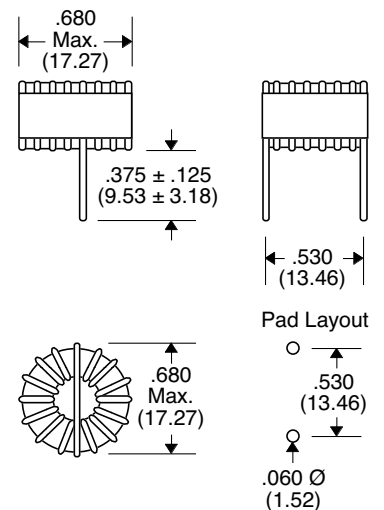
### Package AC2

#### Pad Layout



### Package AC2H

#### Pad Layout



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$



## EPI AC3 Series



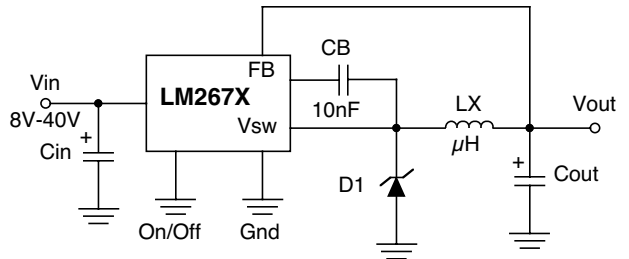
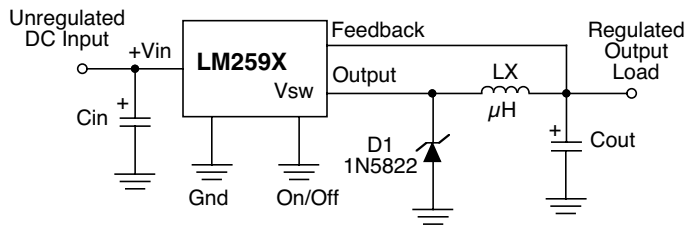
- Optimized for National's LM267X & LM259X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 150 KHz & 500 KHz Switching Frequency
- Low Cost Inductor

### Primary Specification

Part Number	National Semiconductor Chip	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 15\%$ ) @ Idc	Idc (mA)	Core Loss		Vt1 (V- $\mu\text{Sec}$ ) 150 KHz	Vt2 (V- $\mu\text{Sec}$ ) 260 KHz	Temp.Rise	
						@ Vt1 (mW)	@ Vt2 (mW)			@ Vt1 $^{\circ}\text{C}$ (Typ.)	@ Vt2 $^{\circ}\text{C}$ (Typ.)
EPI220502AC3	LM267X-L41	27	0.025	22	5000	---	290	---	23.1	---	35
	LM267X-L50	27	0.025	22	5000	---	290	---	23.1	---	35
EPI330402AC3	LM267X-L40	40	0.038	33	4000	---	260	---	27.0	---	34
EPI330352AC3	LM259X-L40	38	0.046	33	3500	210	---	33.4	---	31	---
EPI470352AC3	LM259X-L39	60	0.074	47	3500	185	---	40.0	---	42	---
	LM267X-L39	60	0.074	47	3500	---	185	---	28.5	---	42
EPI680302AC3	LM259X-L38	87	0.090	68	3000	155	---	46.7	---	37	---
	LM267X-L38	87	0.090	68	3000	---	155	---	30.8	---	37
EPI680352AC3	LM267X-L44	91	0.091	68	3500	45	---	26.7	---	43	---
	LM259X-L44	91	0.091	68	3500	---	60	---	12.7	---	44
EPI101252AC3	LM259X-L37	128	0.110	100	2500	155	---	55.4	---	33	---
EPI151202AC3	LM259X-L36	194	0.260	150	2000	113	---	56.7	---	43	---
EPI221152AC3	LM259X-L35	265	0.394	220	1500	134	---	73.4	---	39	---

For no header version : add "V" for Vertical Mount and add "H" for Horizontal Mount

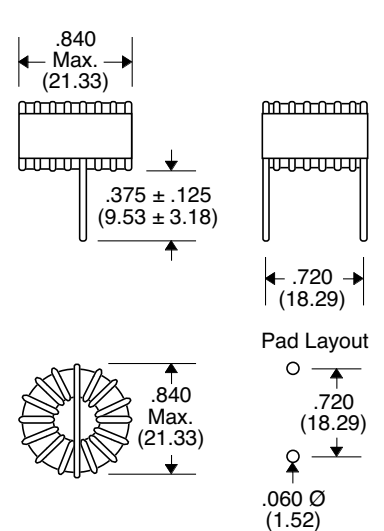
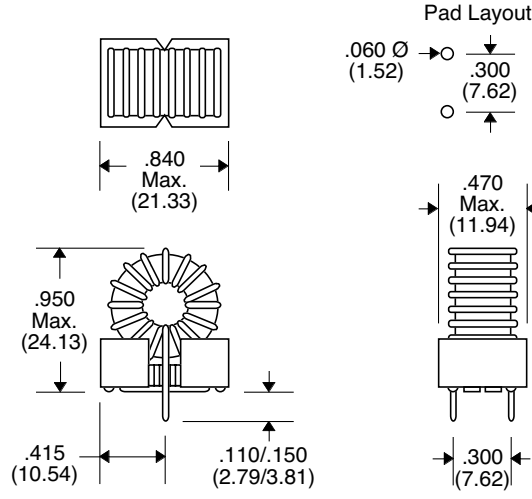
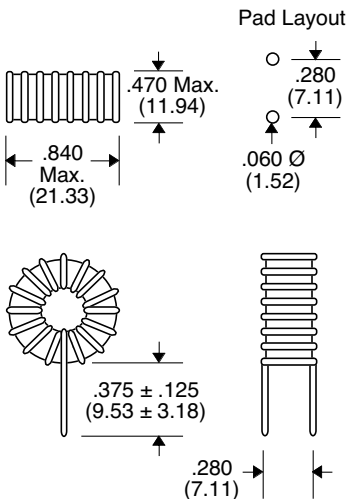
### Applications



### Package AC3V

### Package AC3

### Package AC3H



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI AC4 Series



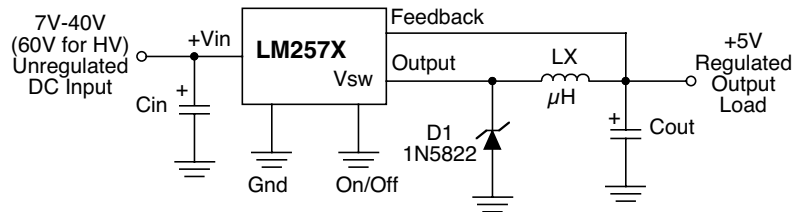
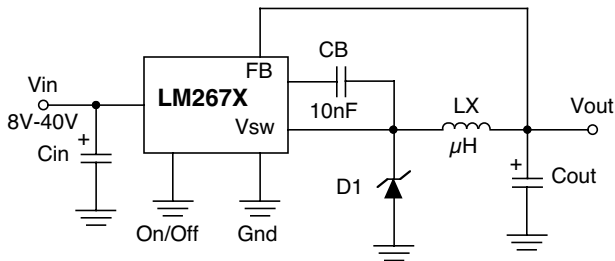
- Optimized for National's LM267X, LM259X & LM257X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- 52 KHz, 150 KHz & 260 KHz Switching Frequency
- Also suitable for use in high quality filter applications
- Low Cost Inductor

### Primary Specification

Part Number	National Semiconductor Chip	Induct. ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 15\%$ ) @ Idc	Idc (mA)	Core Loss			Vt1 (V- $\mu\text{sec}$ ) 150 KHz	Vt2 (V- $\mu\text{sec}$ ) 260 KHz	Vt3 (V- $\mu\text{sec}$ ) 52 KHz	Temp. Rise @ Vt $^{\circ}\text{C}$ (Typ.)
						@ Vt1 (mW)	@ Vt2 (mW)	@ Vt3 (mW)				
EPI330552AC4	LM267X-L49	42	.027	33	5500	---	445	---	---	36.6	---	34 @ Vt2
EPI470552AC4	LM267X-L48	64	.042	47	5500	---	380	---	---	42.4	---	42 @ Vt2
EPI680302AC4	LM257X-L68	78	.061	68	3000	---	---	300	---	---	96.2	24 @ Vt3
EPI101302AC4	LM257X-100	121	.093	100	3000	---	---	180	---	---	96.2	28 @ Vt3
EPI101342AC4	LM257X-L43	130	.125	100	3400	320	---	---	81.4	---	---	44 @ Vt1
EPI151202AC4	LM257X-L150	173	.144	150	2000	---	---	125	---	---	96.2	24 @ Vt3
EPI151272AC4	LM259X-L42	196	.188	150	2700	320	---	---	90.7	---	---	43 @ Vt1
EPI151302AC4	LM257X-H150	202	.191	150	3000	---	---	550	---	---	207.7	55 @ Vt3
EPI471102AC4	LM257X-L470	493	.754	470	1000	---	---	213	---	---	207.7	27 @ Vt3

For no header version : add "V" for Vertical Mount and add "H" for Horizontal Mount

### Applications

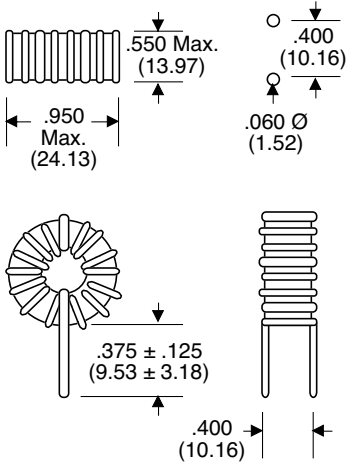


### Package AC4V

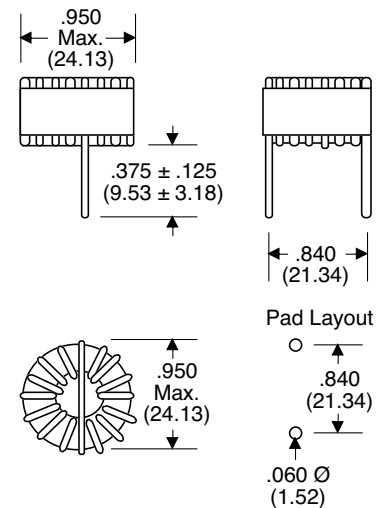
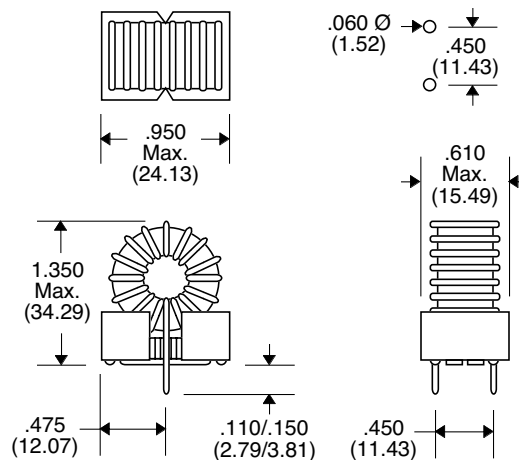
### Package AC4

### Package AC4H

#### Pad Layout



#### Pad Layout



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

## EPI AC5 Series



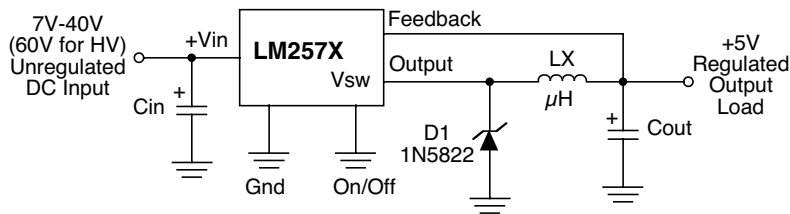
- Optimized for National's LM257X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 52 KHz Switching Frequency
- Low Cost Inductor

### Primary Specification

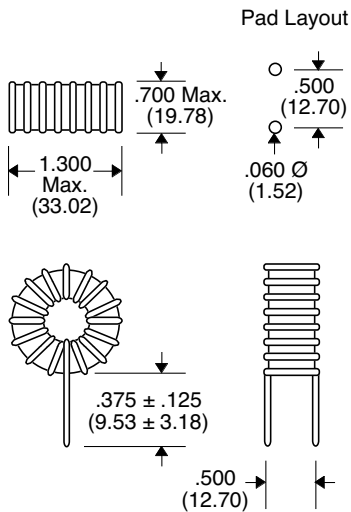
Part Number	National Semiconductor Chip	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 10\%$ ) @ Idc	Idc (mA)	Core Loss @ Vt1 (mW)	Vt1 (V- $\mu\text{Sec}$ ) 52 KHz	Temp.Rise @ Vt1 $^{\circ}\text{C}$ (Typ.)
EPI221302AC5	LM257X-H220	260	.090	220	3000	510	230.8	23
EPI331302AC5	LM257X-H330	437	.117	330	3000	280	230.8	26
EPI471202AC5	LM257X-H470	542	.210	470	2000	210	230.8	20
EPI681132AC5	LM257X-H680	757	.247	680	1300	150	230.8	12
EPI102951AC5	LM257X-H1000	1093	.297	1000	950	110	230.8	9

For no header version : add "V" for Vertical Mount and add "H" for Horizontal Mount

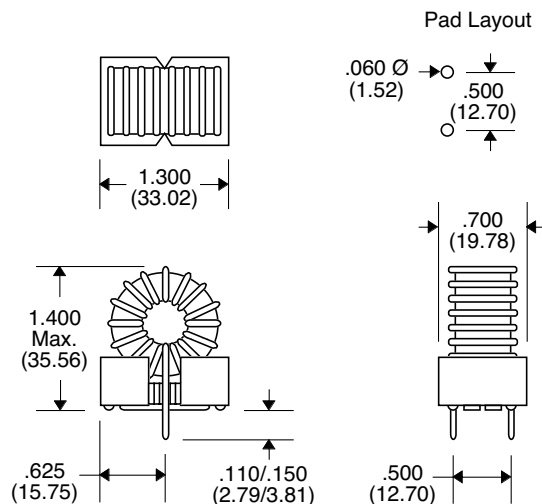
### Applications



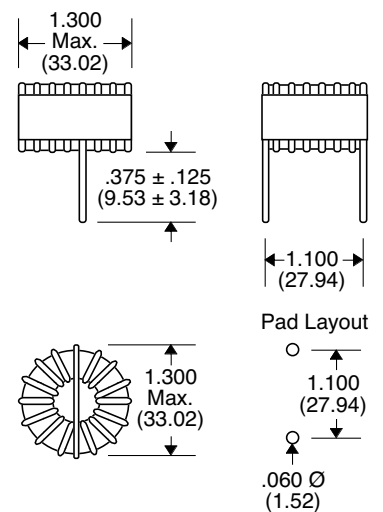
### Package AC5V



### Package AC5



### Package AC5H



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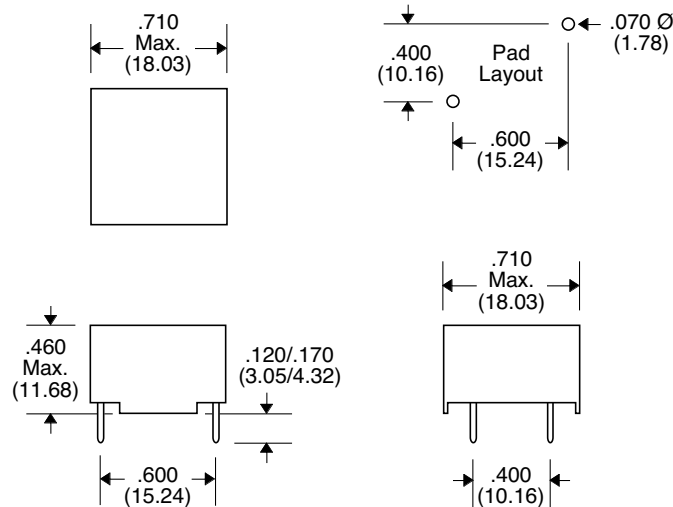
## EPI AH50 Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Inductor with varying Volt-Seconds and Low Core Loss
- Also suitable for use in high quality filter applications
- Low Cost & Low Profile Thru Hole Inductor
- 50 KHz & 500 KHz Switching Frequency

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 15\%$ ) @ Idc	Idc (mA)	Vt1 (V- $\mu\text{Sec}$ )	Temp.Rise @ Vt1 $^{\circ}\text{C}$ (Typ.)
EPI151172AH50	220	0.21	150	1700	96.2	41
EPI221152AH50	326	0.31	220	1500	96.2	46
EPI331102AH50	430	0.57	330	1000	111.6	39
EPI471901AH50	636	0.70	470	900	134.7	40
EPI681851AH50	1002	0.87	680	850	169.3	42
EPI821751AH50	1155	1.17	820	750	182.7	41
EPI102501AH50	1216	1.20	1000	500	186.6	25

### Package AH50



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010$  / .25

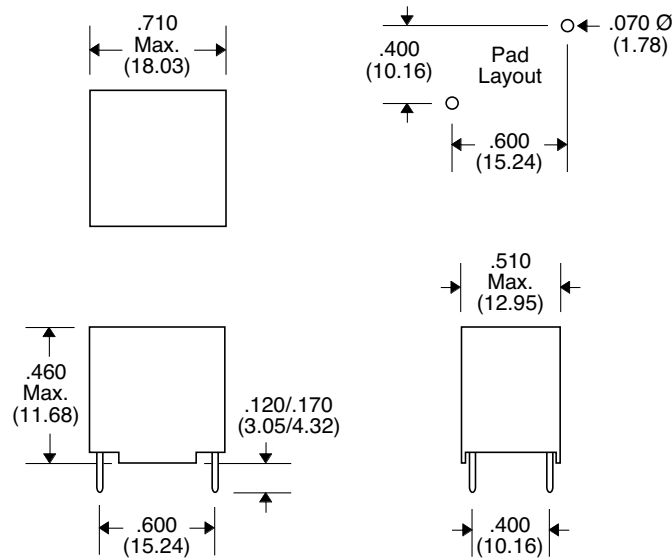
## EPI AV50 Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Inductor with varying Volt-Seconds and Low Core Loss
- Also suitable for use in high quality filter applications
- Low Cost & Low Profile Thru Hole Inductor
- 50 KHz & 500 KHz Switching Frequency

### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	DCR ( $\Omega$ Typ.)	Induct. ( $\mu\text{H} 15\%$ ) @ Idc	Idc (mA)	Vt1 (V- $\mu\text{Sec}$ )	Temp.Rise @ Vt1 $^{\circ}\text{C}$ (Typ.)
EPI151172AH50	220	0.21	150	1700	96.2	41
EPI221152AH50	326	0.31	220	1500	96.2	46
EPI331102AH50	430	0.57	330	1000	111.6	39
EPI471901AH50	636	0.70	470	900	134.7	40
EPI681851AH50	1002	0.87	680	850	169.3	42
EPI821751AH50	1155	1.17	820	750	182.7	41
EPI102501AH50	1216	1.20	1000	500	186.6	25

### Package AV50



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

# Thru-Hole Power Inductor EPI AVM1 Series

## Features of the EPI "AVM1" Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- Up to 500 KHz Switching Frequency
- UL 1446 Class B Insulation System
- UL 94V-0 Recognized Material
- In Vertical Mount Package
- Low Cost Inductor

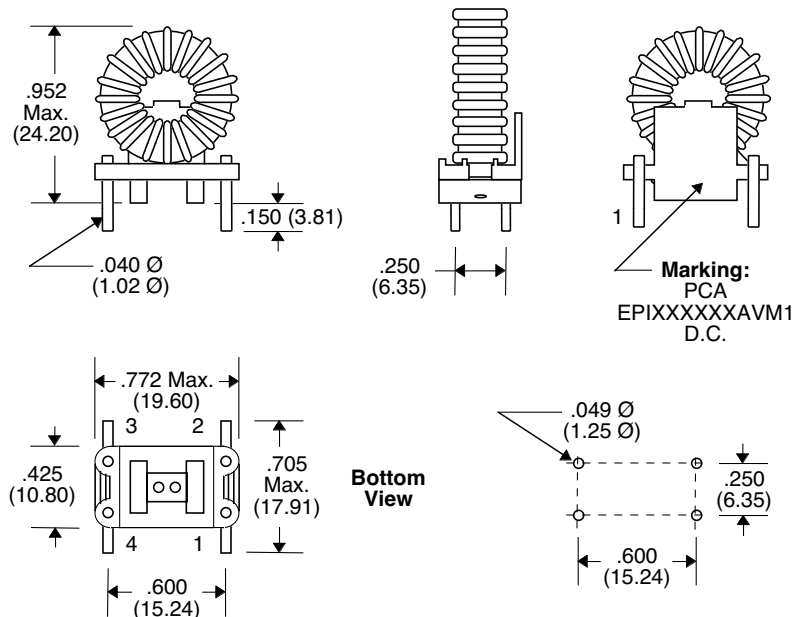
### Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	Induct. ( $\mu\text{H} \pm 15\%$ ) @ I Sat	DCR ( $\Omega$ Typ.)	I <sub>dc</sub> (A)	I Sat (A)	Core Loss (mW) @ V <sub>t</sub>	V <sub>t</sub> (V- $\mu\text{Sec.}$ ) @ 100 KHz	Energy ( $\mu\text{J}$ ) @ I Sat	Temp. Rise @ I <sub>dc</sub> (°C)
EPI500272AVM1	50.29	35.0	.054	2.6	2.7	33	16.3	128	26.5
EPI101242AVM1	100.38	69.3	.097	2.5	2.4	51	27.5	200	33
EPI151232AVM1	151.69	105.3	.124	2.1	2.3	58	35.7	279	25

### Schematic



### Package AVM1



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$

# Thru-Hole Power Inductor EPI AVM2 Series

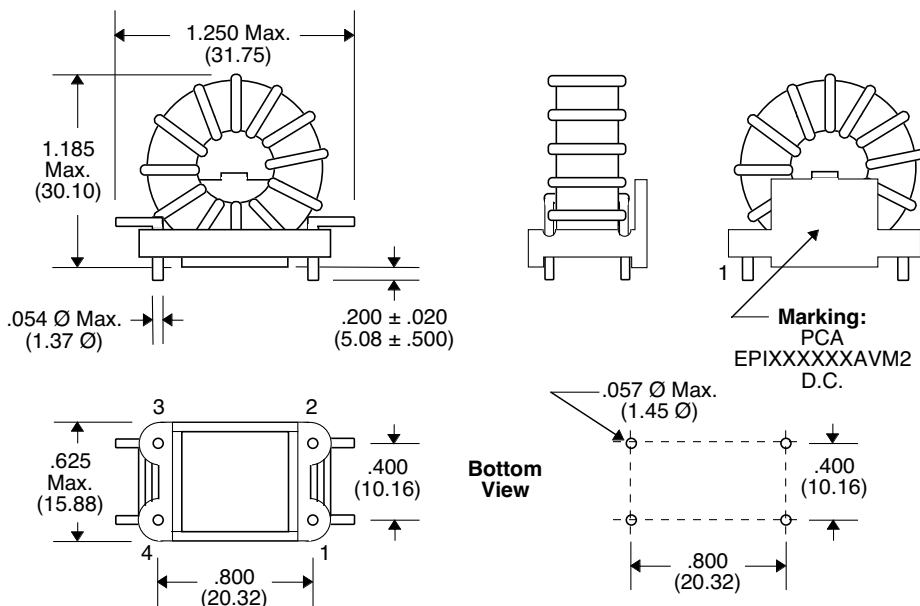
## Features of the EPI "AVM2" Series

- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- Up to 500 KHz Switching Frequency
- UL 1446 Class B Insulation System
- UL 94V-0 Recognized Material
- In Header Mount Package
- Low Cost Inductor

## Primary Specification

Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	Induct. ( $\mu\text{H} \pm 15\%$ ) @ I Sat	DCR ( $\Omega$ Typ.)	I <sub>dc</sub> (A)	I Sat (A)	Core Loss (mW) @ Vt	Vt (V- $\mu\text{Sec.}$ ) @ 100 KHz	Energy ( $\mu\text{J}$ ) @ I Sat	Temp. Rise @ I <sub>dc</sub> (°C)	Schematic
EPI100113AVM2	9.68	6.7	.0066	8.7	11.1	61	9.4	412	20	A
EPI100153AVM2	10.82	7.0	.006	15	15	91	12	787	33	B
EPI220802AVM2	23.10	16.8	.009	8	8	91	18	537	17	B
EPI330802AVM2	33.86	22.6	.011	8	8	91	21.8	722	20	B
EPI470802AVM2	47.32	25.9	.020	8	8	148	25.5	828	32	B
EPI500492AVM2	50.00	34.5	.023	4.9	4.9	49	21.3	415	21	A
EPI530902AVM2	53.82	29.42	.017	9	9	91	21	1192	33	A
EPI560802AVM2	54.88	28.5	.021	8	8	160	28.5	913	34	B
EPI680802AVM2	69.70	37.6	.025	8	8	91	31	1204	37	B
EPI820902AVM2	82.94	39.26	.021	9	9	91	25.5	1590	40	A
EPI101402AVM2	102.40	73	.048	4	4	91	38	584	21	B
EPI151402AVM2	148.00	104	.060	4.3	4	99	47.6	829	24	A
EPI151402AVM2B	153.66	99	.077	4	4	91	46.5	795	30	B
EPI221202AVM2	222.78	178	.147	2	2	91	56	357	17	B
EPI251222AVM2	250.88	173	.161	1.9	2.2	61	47.8	419	23	A
EPI331202AVM2	331.78	248	.221	2	2	91	68	496	23	B
EPI471102AVM2	473.34	413	.419	1	1	91	82	207	14	B
EPI501332AVM2	499.39	346	.149	3.1	3.3	133	104	1885	20	A

## Package AVM2



## Schematic A



## Schematic B



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm$  .010 / .25

# Thru-Hole Power Inductor EPI AVM3 Series

## Features of the EPI "AVM3" Series

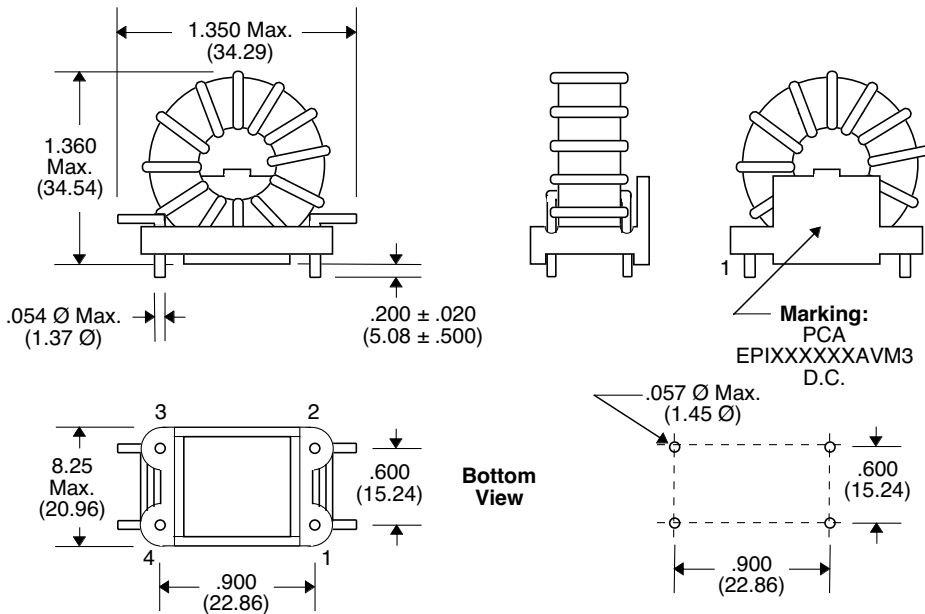
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- Up to 500 KHz Switching Frequency
- UL 1446 Class B Insulation System
- UL 94V-0 Recognized Material
- In Header Mount Package
- Low Cost Inductor

## Primary Specification

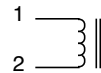
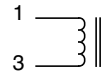
Part Number	Induct. ( $\mu\text{H} \pm 20\%$ ) @ 0 Adc	Induct. ( $\mu\text{H} \pm 15\%$ ) @ I Sat	DCR ( $\Omega$ Typ.)	I <sub>dc</sub> (A)	I Sat (A)	Core Loss (mW) @ Vt	Vt (V- $\mu\text{Sec.}$ ) @ 100 KHz	Energy ( $\mu\text{J}$ ) @ I Sat	Temp. Rise @ I <sub>dc</sub> (°C)	Schematic
EPI100132AVM3	10.04	7	.006	11.4	13.5	77	11.0	638	21	A
EPI200142AVM3	20.96	14.6	.009	11.4	14.5	106	19.0	1535	20	A
EPI200932AVM3	21.25	14.8	.011	7.8	9.3	77	16.0	640	19	A
EPI220153AVM3	21.38	13.6	.009	15	15	107	19.2	1531	34	B
EPI470153AVM3	45.98	23.3	.010	15	15	107	28.1	2621	38	B
EPI500942AVM3	49.60	34.6	.017	7.6	9.4	106	29.5	1527	18	A
EPI500102AVM3	52.27	36.4	.015	10.5	10.2	134	33.5	1894	23	A
EPI101752AVM3	97.22	65	.024	8.2	7.5	134	45.7	1823	26	A
EPI101802AVM3	95.32	48	.030	8.0	8.0	171	42.0	1544	34	B
EPI101432AVM3	101.68	71	.038	4.4	4.3	77	35.0	655	20	A
EPI151752AVM3	150.58	105	.030	7.7	7.5	171	66.0	2951	18	A
EPI251422AVM3	251.10	175	.077	4.2	4.2	106	66.0	1543	22	A
EPI471202AVM3	478.90	374	.268	2.0	2.0	107	91.0	747	21	B
EPI501192AVM3	504.97	352	.267	1.7	1.9	77	77.9	635	21	A
EPI681102AVM3	686.38	613	.662	1.0	1.0	107	109	307	15	B
EPI751342AVM3	749.33	522	.169	3.4	3.4	171	147.3	3017	19	A
EPI751242AVM3	754.42	526	.341	1.8	2.4	106	114.3	1514	19	A
EPI102212AVM3	1004.40	700	.510	1.5	2.1	106	131.9	1543	20	A
EPI102102AVM3	1027.52	880	.810	1.0	1.0	107	133	440	17	B

## Package AVM3

## Schematic A



## Schematic B



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm$  .010 / .25



## EPI RL30 Series

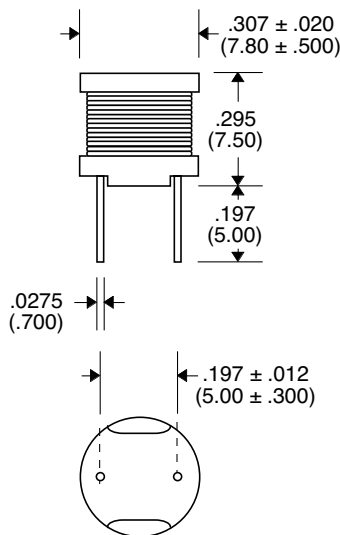


- Virtually no limit on V  $\mu$ Sec. as long as max. RMS Current Limit and Temperature Rise Limit are not exceeded
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- Low cost Robust construction to withstand most SMT processes

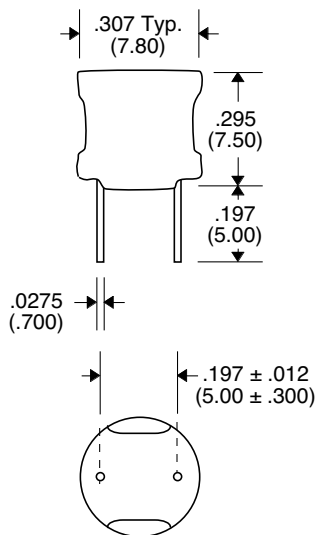
### Primary Specification

Part Number (add "A" for Heat Shrink Tube)	Inductance ( $\mu$ H) @ 0 Adc	DCR ( $\Omega$ Max.)	I dc (mA Max.)	Test Frequency (MHz Typ.)
EPI1L0103RL30	1.0 $\pm$ 20%	0.013	10000	7.96
EPI1L5852RL30	1.5 $\pm$ 20%	0.016	8500	7.96
EPI2L2652RL30	2.2 $\pm$ 20%	0.021	6500	7.96
EPI3L3552RL30	3.3 $\pm$ 20%	0.025	5500	7.96
EPI4L7432RL30	4.7 $\pm$ 20%	0.030	4300	7.96
EPI6L8372RL30	6.8 $\pm$ 20%	0.035	3700	7.96
EPI100292RL30	10 $\pm$ 20%	0.05	2900	2.52
EPI120252RL30	12 $\pm$ 20%	0.06	2500	2.52
EPI150222RL30	15 $\pm$ 10%	0.07	2200	2.52
EPI180192RL30	18 $\pm$ 10%	0.08	1900	2.52
EPI220182RL30	22 $\pm$ 10%	0.09	1800	2.52
EPI270172RL30	27 $\pm$ 10%	0.11	1700	2.52
EPI330152RL30	33 $\pm$ 10%	0.13	1500	2.52
EPI390132RL30	39 $\pm$ 10%	0.14	1300	2.52
EPI470132RL30	47 $\pm$ 10%	0.15	1300	2.52
EPI560122RL30	56 $\pm$ 10%	0.18	1200	2.52
EPI680112RL30	68 $\pm$ 10%	0.20	1100	2.52
EPI820102RL30	82 $\pm$ 10%	0.24	1000	2.52
EPI101891RL30	100 $\pm$ 10%	0.28	890	1.0
EPI121811RL30	120 $\pm$ 10%	0.36	810	1.0
EPI151721RL30	150 $\pm$ 10%	0.42	720	1.0
EPI181661RL30	180 $\pm$ 10%	0.57	660	1.0

**Package RL30**  
(Without Heat Shrink Tube)



**Package RL30A**  
(With Heat Shrink Tube)



**Note :**

1. Temperature Rise : 40°C Max. @ I<sub>dc</sub>
2. Inductance Drop : 10% Max. @ I<sub>dc</sub>
3. Leads are pre-tinned

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