

SMD Power Inductor Wire Wound Shielded

PIW-67 Series

MERITEK

FEATURE

- Magnetic Shield Wound Inductor for Power Circuits
- High Power Rating
- High Saturation Current
- Ideally used for DC/DC Converters



ELECTRICAL CHARACTERISTICS

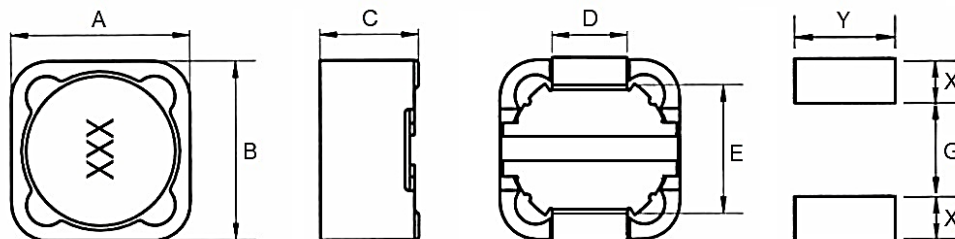
Series	Nominal Inductance (μ H)	DCR (m Ω)	Rated Current (A)
PIW-124P67	3.9 ~ 330	15 ~ 990	6.5 ~ 0.5
PIW-125P67	1.3 ~ 1000	12 ~ 1530	8.0 ~ 0.4
PIW-127P67	1.2 ~ 1000	7 ~ 1820	9.8 ~ 0.55

PART NUMBERING SYSTEM

PIW 220M 125P 67
(1) (2) (3) (4)

No.	Item	Code	Description
(1)	Product Code	PIW	Power Inductor Series, Wire Wound type
(2)	Inductance	220M	22 μ H $\pm$ 20% (M) First two digits: Significant, Third: Multiplier
(3)	Size Code	125P	12.0x12.0x6.0mm See Dimension Table
(4)	Series Code	67	Surface Mount Shielded Type, Internal control or project reference

DIMENSIONS



Unit: mm

Size Code	A	B	C	D	E	X	Y	G
124P	12.0 $\pm$ 0.3	12.0 $\pm$ 0.3	4.80 Max	8.40	5.00	2.80	5.40	7.00
125P	12.0 $\pm$ 0.3	12.0 $\pm$ 0.3	6.00 Max	8.40	5.00	2.80	5.40	7.00
127P	12.0 $\pm$ 0.3	12.0 $\pm$ 0.3	8.00 Max	8.40	5.00	2.80	5.40	7.00

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ELECTRICAL CHARACTERISTICS - PIW-124P67 series

Part Number	Inductance (μ H)	Tolerance (%)	DCR Max (m Ω)	Rated Current (A)
PIW3R9M124P67	3.9	± 20	15	6.50
PIW4R7M124P67	4.7	± 20	18	5.70
PIW6R8M124P67	6.8	± 20	23	4.90
PIW8R2M124P67	8.2	± 20	26	4.60
PIW100M124P67	10	± 20	28	4.50
PIW120M124P67	12	± 20	38	4.00
PIW150M124P67	15	± 20	50	3.20
PIW180M124P67	18	± 20	57	3.10
PIW220M124P67	22	± 20	66	2.90
PIW270M124P67	27	± 20	80	2.80
PIW330M124P67	33	± 20	97	2.70
PIW390M124P67	39	± 20	132	2.10
PIW470M124P67	47	± 20	150	1.90
PIW560M124P67	56	± 20	190	1.80
PIW680M124P67	68	± 20	220	1.50
PIW820M124P67	82	± 20	260	1.30
PIW101M124P67	100	± 20	308	1.20
PIW121M124P67	120	± 20	380	1.10
PIW151M124P67	150	± 20	530	0.95
PIW181M124P67	180	± 20	620	0.85
PIW221M124P67	220	± 20	700	0.80
PIW271M124P67	270	± 20	870	0.60
PIW331M124P67	330	± 20	990	0.50

Note:

1. Inductance test under 100KHz

2. Rated current based on inductance drop ($\Delta L/L_0$: $\leq 25\%$) or temperature rise (ΔT : $< 40^\circ\text{C}$), whichever is smaller

3. Operating temperature range: $-25^\circ\text{C} \sim +125^\circ\text{C}$

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ELECTRICAL CHARACTERISTICS - PIW-125P67 series

Part Number	Inductance (μH)	Tolerance (%)	DCR Max (mΩ)	Rated Current (A)
PIW1R3N125P67	1.3	+30/-20	12	8.00
PIW2R1N125P67	2.1	+30/-20	14	7.00
PIW3R1N125P67	3.1	+30/-20	17	6.00
PIW4R4N125P67	4.4	+30/-20	20	5.00
PIW5R8N125P67	5.8	+30/-20	21	4.40
PIW7R5N125P67	7.5	+30/-20	24	4.20
PIW100M125P67	10	±20	25	4.00
PIW120M125P67	12	±20	27	3.50
PIW150M125P67	15	±20	30	3.30
PIW180M125P67	18	±20	34	3.00
PIW220M125P67	22	±20	36	2.80
PIW270M125P67	27	±20	51	2.30
PIW330M125P67	33	±20	57	2.10
PIW390M125P67	39	±20	68	2.00
PIW470M125P67	47	±20	75	1.80
PIW560M125P67	56	±20	110	1.70
PIW680M125P67	68	±20	120	1.50
PIW820M125P67	82	±20	140	1.40
PIW101M125P67	100	±20	160	1.30
PIW121M125P67	120	±20	170	1.10
PIW151M125P67	150	±20	230	1.00
PIW181M125P67	180	±20	290	0.90
PIW221M125P67	220	±20	400	0.80
PIW271M125P67	270	±20	460	0.75
PIW331M125P67	330	±20	510	0.68
PIW391M125P67	390	±20	690	0.65
PIW471M125P67	470	±20	770	0.58
PIW561M125P67	560	±20	860	0.54
PIW681M125P67	680	±20	1200	0.48
PIW821M125P67	820	±20	1340	0.43
PIW102M125P67	1000	±20	1530	0.40

Note:

1. Inductance 1.3~7.5μH test under 100KHz, 10~1000μH test under 1KHz
2. Rated current based on inductance drop ($\Delta L/L_0$: ≤25%) or temperature rise (ΔT : <40°C), whichever is smaller
3. Operating temperature range: -25°C ~ +125°C

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ELECTRICAL CHARACTERISTICS - PIW-127P67 series

Part Number	Inductance (μH)	Tolerance (%)	DCR Max (mΩ)	Rated Current (A)
PIW1R2N127P67	1.2	+40/-20	7.0	9.80
PIW2R4N127P67	2.4	+40/-20	11.5	8.00
PIW3R5N127P67	3.5	+40/-20	13.5	7.50
PIW4R7N127P67	4.7	+40/-20	15.8	6.80
PIW6R1N127P67	6.1	+40/-20	17.6	6.60
PIW7R6N127P67	7.6	+40/-20	20.0	5.90
PIW100M127P67	10	±20	21.6	5.40
PIW120M127P67	12	±20	24.3	4.90
PIW150M127P67	15	±20	27.0	4.50
PIW180M127P67	18	±20	39.2	3.90
PIW220M127P67	22	±20	43.2	3.60
PIW270M127P67	27	±20	45.9	3.40
PIW330M127P67	33	±20	64.8	3.00
PIW390M127P67	39	±20	72.9	2.75
PIW470M127P67	47	±20	100	2.50
PIW560M127P67	56	±20	110	2.35
PIW680M127P67	68	±20	140	2.10
PIW820M127P67	82	±20	160	1.95
PIW101M127P67	100	±20	220	1.70
PIW121M127P67	120	±20	250	1.60
PIW151M127P67	150	±20	280	1.42
PIW181M127P67	180	±20	350	1.30
PIW221M127P67	220	±20	390	1.16
PIW271M127P67	270	±20	560	1.06
PIW331M127P67	330	±20	640	0.95
PIW391M127P67	390	±20	700	0.88
PIW471M127P67	470	±20	980	0.79
PIW561M127P67	560	±20	1070	0.73
PIW681M127P67	680	±20	1460	0.67
PIW821M127P67	820	±20	1640	0.60
PIW102M127P67	1000	±20	1820	0.55

Note:

1. Inductance 1.2~7.6μH test under 100KHz, 10~1000μH test under 1KHz

2. Rated current based on inductance drop ($\Delta L/L_0$: ≤25%) or temperature rise (ΔT : <40°C), whichever is smaller

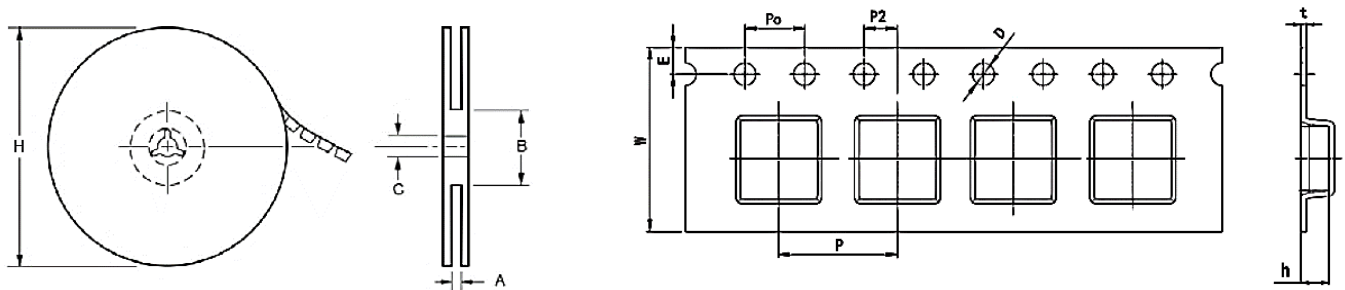
3. Operating temperature range: -25°C ~ +125°C

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PACKAGING DIMENSION



Unit: mm

Size Code	Reel Dimension				Tape Dimensions								Parts Per Reel
	A	B	C	H	W	P	P0	P2	E	D	t	h	Plastic 13"
124P	25.0	100	13.0	340	24.0	16.0	4.0	2.0	1.75	1.5	0.35	5.50	750
125P	25.0	100	13.0	340	24.0	16.0	4.0	2.0	1.75	1.5	0.35	6.50	500
127P	25.0	100	13.0	340	24.0	16.0	4.0	2.0	1.75	1.5	0.35	8.40	500

*Specifications subject to change without notice.