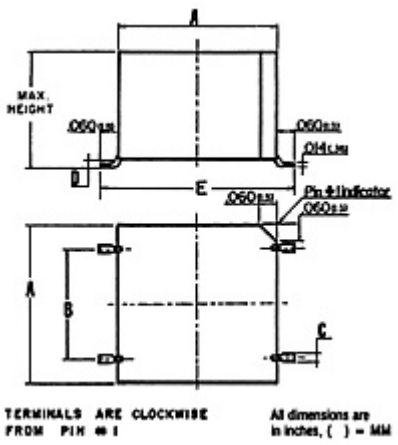
PICO Electronics

EMI Common Mode Suppression Inductors

SURFACE MOUNT

PICO surface mount units utilize materials and methods to withstand extreme temperatures of vapor phase, I.R., and other reflow procedures without degradation of electrical or mechanical characteristics.



Larger size drawing [1]

Specifications

- All units manufactured to Mil-PRF-27, Grade 5, Class S.
- Dielectric Strength...1500 Volts RMS
- Windings Balanced ± 1%
- Maximum ambient plus temperature rise limited to 130º C.
- Inductance Tolerance: Minimum inductance is 80% of list value with no maximum value.
- Moisture Sensitivity Level: MSL3
- Terminals: Meets Solderability per MIL-STD-202, Method 208.

These inductors are well suited for use in Switching Regulators, DC to DC Power Supplies, and all types of Electrical Equipment where the elimination of line transmitted Electromagnetic Interference is important. Electrical equipment will generate noise due to switching operations of transistors, SCR's, replays, triacs, etc. By using these Inductors, noise being fed to the power line is minimized to an acceptable level and this noise will not interfere with other equipment operating on the same power line.

Inductance (Each Winding)	I RMS (Amps)			RDC (Ohms) Each WDG	Approx. Leakage Inductance (Micro-Henry)	Size	Model Number	Prices 1-9 (US $)
	Temp. Rise 60ºC	Temp. Rise 40ºC	Temp. Rise 25º C					
50 Micro-Henry	1.02	.82	.72	0.0090	0.35	0	52070	58.12
	3.4	2.8	2.6	0.0125	0.40	1	46470	58.13
	6.0	5.2	4.4	0.0063	0.34	2	47570	58.13
	9.9	8.2	7.2	0.0033	0.29	3	48670	63.91
75 Micro-Henry	.78	.62	.54	0.1500	0.52	0	52065	58.12
	2.6	2.1	1.9	0.0212	0.60	1	46465	58.13
	4.8	4.2	3.6	0.0094	0.54	2	47565	58.13
	8.0	6.7	5.9	0.0085	0.43	3	48665	63.91
100 Micro-Henry	.69	.55	.49	0.0200	0.70	0	52060	58.12
	2.3	1.8	1.7	0.0288	0.80	1	46460	58.13
	4.2	3.7	3.1	0.0125	0.68	2	47560	58.13
	6.9	5.7	5.0	0.0066	0.58	3	48660	63.91
250 Micro-Henry	.42	.34	.30	0.0560	1.8	0	52055	58.12
	1.4	1.1	1.1	0.0700	2.0	1	46455	58.13
	2.6	2.3	1.9	0.0313	1.7	2	47555	58.13
	4.4	3.7	3.3	0.0163	1.4	3	48655	63.91
500 Micro-Henry	.33	.27	.24	0.1300	3.5	0	52050	58.12
	1.1	0.9	0.8	0.1250	4.0	1	46450	58.13
	1.8	1.7	1.4	0.0625	3.4	2	47550	58.13
	3.1	2.6	2.3	0.0325	2.9	3	48650	63.91
750 Micro-Henry	.24	.19	.17	0.1700	5.25	0	52045	58.12
	0.8	0.7	0.6	0.2125	6.0	1	46445	58.13
	1.5	1.3	1.1	0.0938	5.1	2	47545	58.13
	2.6	1.1	1.8	0.0488	4.3	3	48645	63.91
1.0 Milli-Henry	.16	.13	.11	0.5500	.75	0	52040	58.12
	0.81	0.66	0.61	0.2300	8.0	1	46440	58.13
	1.5	1.3	1.1	0.1000	6.8	2	47540	58.13
	2.5	2.1	1.8	0.0530	5.75	3	48640	63.91
2.5 Milli-Henry	0.18	0.07	0.06	0.8800	17.5	0	52035	58.12
	0.52	0.42	0.39	0.5600	20	1	46435	58.13
	0.96	0.84	0.71	0.2500	17	2	47535	58.13
	1.6	1.3	1.2	0.1310	14.400	3	48635	63.91

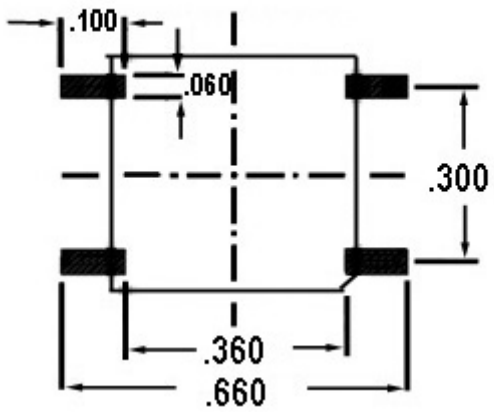
5.0 Milli-Henry	0.06 0.37 0.68 1.1	0.48 0.3 0.59 0.9	0.03 0.28 0.5 0.82	1.6200 1.1000 0.5000 0.2630	37 40 34 28.800	0 1 2 3	52030 46430 47530 48630	58.12 58.13 58.13 63.91
7.5 Milli-Henry	0.3 0.55 0.9	0.24 0.48 0.8	0.22 0.41 0.67	1.7000 0.7500 0.3940	60 51 43.100	1 2 3	46425 47525 48625	58.13 58.13 63.91
10 Milli-Henry	0.26 0.48 0.8	0.21 0.42 0.7	0.19 0.35 0.57	2.3000 1.0000 0.5300	80.0 68.0 57.5	1 2 3	46420 47520 48620	58.13 58.13 63.91
15 Milli-Henry	0.21 0.39 0.64	0.17 0.34 0.53	0.16 0.29 0.47	3.4000 1.5000 0.7900	120 102 86	1 2 3	46415 47515 48615	58.13 58.13 63.91
17.5 Milli-Henry	0.2 0.36 0.59	0.16 0.32 0.49	0.15 0.27 0.44	3.9400 1.7500 0.9190	140 119 101	1 2 3	46410 47510 48610	58.13 58.13 63.91
20 Milli-Henry	0.18 0.34 0.56	0.15 0.30 0.46	0.14 0.25 0.41	4.5000 2.0000 1.0500	160 136 115	1 2 3	46405 47505 48605	58.13 58.13 63.91

Size	Max. Height	A	B	C	D	E
0	.260 (6.60)	.400 (10.16)	.300 (7.62)	.020 (0.50)	.020 (0.50)	.520 (13.21)
1	.305 (7.75)	.450 (11.43)	.300 (7.62)	.025 (0.64)	.020 (0.51)	.570 (14.48)
2	.360 (9.14)	.550 (13.97)	.400 (10.16)	.031 (0.79)	.025 (0.64)	.670 (17.02)
3	.440 (11.18)	.650 (16.51)	.500 (12.70)	.031 (0.79)	.025 (0.64)	.770 (19.56)
Units are in inches. ( ) = millimeters						

Click Here for Thru Hole Version of this Series [2]

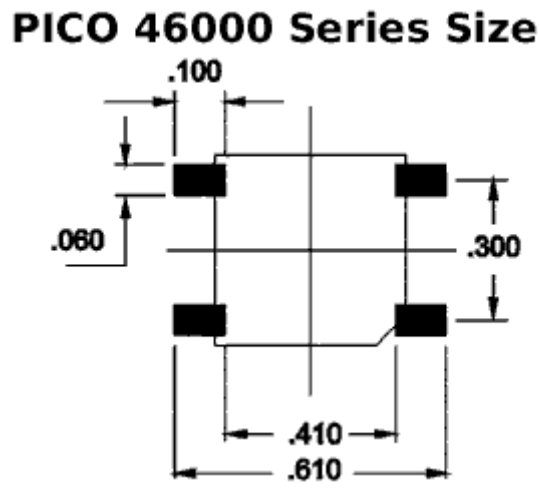
RECOMMENDED LAND PATTERN DIMENSIONS

PICO 52000 Series Size 0



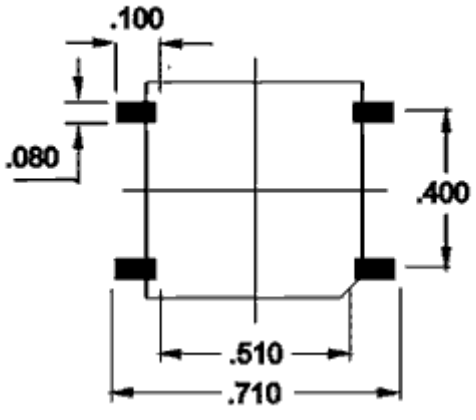
RECOMMENDED LAND PATTERN DIMENSIONS

PICO 46000 Series Size 1



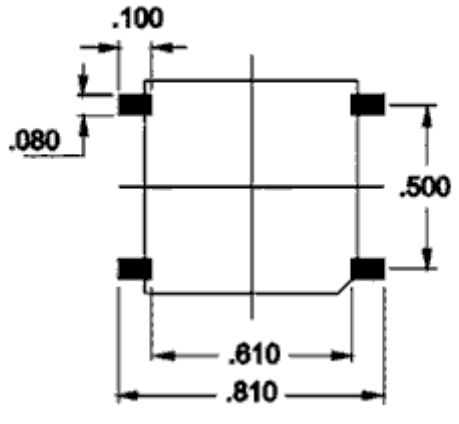
RECOMMENDED LAND PATTERN DIMENSIONS

PICO 47000 Series Size 2



RECOMMENDED LAND PATTERN DIMENSIONS

PICO 48000 Series Size 3

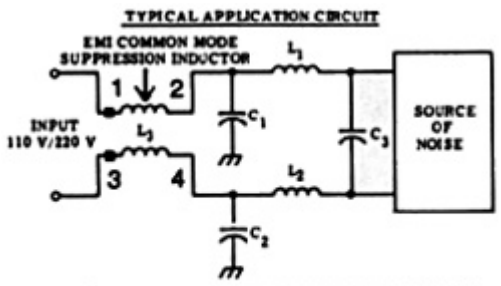


Ordering Instructions:

No minimum.
Net 30 days F.O.B. Pelham, NY

Delivery--stock to one week for sample orders.

- Minimum possible size
- 130° C operation (Ambient plus temperature rise)
- Windings balance ± 1%
- Dielectric strength...1500 Volts RMS



A TYPICAL CIRCUIT FOR THE ELIMINATION OF NOISE IS SHOWN ABOVE. THE FILTER CONTAINS TWO STAGES, ONE FOR COMMON MODE NOISE (L_4, C_1, C_2) AND ONE FOR CONDUCTED NOISE (L_1, L_2, AND C_3).

For immediate engineering assistance or to place an order:
Call Toll Free: 800-431-1064

PICO Electronics, Inc.

143 Sparks Ave. Pelham, NY 10803-1810
Tel: 914-738-1400 or Fax: 914-738-8225

Go back to Surface Mount Transformers and Inductors Selections [3]