

## Audio Transformers:

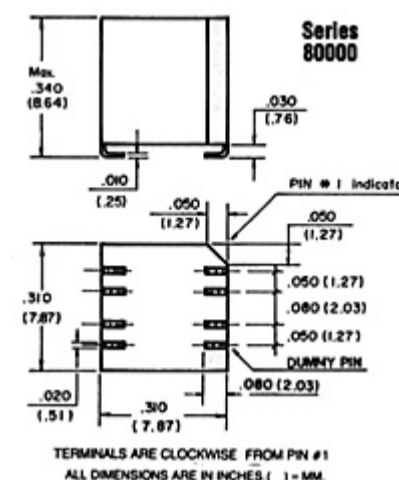
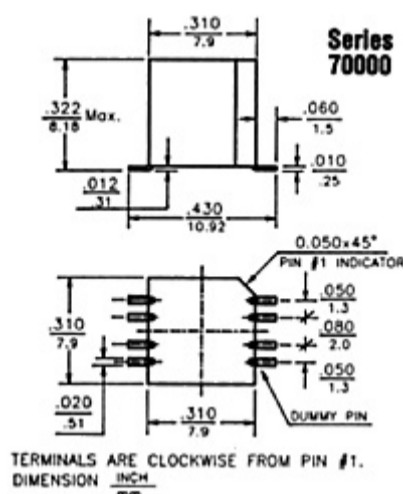
2 Ohm to 30K Ohm; 400Hz to 250KHz; 100 milliwatt at 1KHz

### SURFACE MOUNT

PICO surface mount units utilize materials and methods to withstand extreme temperatures (220° C) of vapor phase, I.R., and other reflow procedures without degradation of electrical or mechanical characteristics.

### Specifications

- **MIL-PRF-27:** All units manufactured to MIL-PRF-27, Grade 5, Class S
- **FREQUENCY RESPONSE:** ± 3db, 400 Hz-250 KHz at 1.0 Milliwatt.
- **MAXIMUM DISTORTION:** 5% with rated power level at 1 KHz and 400 Hz.
- **DIELECTRIC STRENGTH:** All units tested at 200 V RMS.
- **INSULATION RESISTANCE:** Greater than 10,000 Megohms at 300 V DC.
- **WEIGHT:** 1.5 Grams
- **TERMINALS:** Solderability per MIL-STD-202, Method 208.
- **THERMAL SHOCK:** 25 Cycles, Method 107, MIL-STD-202, Test Condition -55° C to +130° C.
- **MOISTURE SENSITIVITY LEVEL :** MSL3



## Audio Transformers: 2 Ohm to 30K Ohm; 400Hz to 250KHz; 100 milliwatt at 1KHz

Gull Wing PICO Part Number	J Lead PICO Part Number	Prim Imped Ohms	Secondary Impedance Ohms Split Windings		Power Milliwatts		Primary Unbal DC Current ma	Prim DC Resist Ohms	Secondary DC Resistance Ohms		Turns/Ratio Prim/Sec		Pico Prices 1-9 *** (US \$)
			SER	PAR	1KHz and higher	400Hz and higher			SER CONN	PAR CONN	SEC SER CONN	SEC PAR CONN	
70003	80003	10ct	10ct	2.5	125	20	11.5	1.1	1.35	.34	1:1	2:1	73.75
70005	80005	20ct	8ct	2	125	20	8	2.1	1.28	.32	1.58:1	3.16:1	73.75
70010	80010	20ct	20ct	5	125	20	8	2.1	2.56	.64	1:1	2:1	73.75
70015	80015	32ct	32ct	8	125	20	6.5	3.52	4.32	1.08	1:1	2:1	73.75
70020	80020	40ct	40ct	10	125	20	5.6	4	4.77	1.19	1:1	2:1	73.17
70025	80025	48ct	16ct	4	125	20	5.2	4.3	2.3	.58	1.73:1	3.46:1	67.04
70030	80030	50ct	50ct	12.5	125	20	5	5.5	6.6	1.65	1.1	2:1	67.04
70035	80035	80ct	32ct	8	125	20	4	8.5	4.25	1.06	1.58:1	3.16:1	73.17
70040	80040	100ct	40ct	10	125	20	3.6	12.1	4.85	1.21	1.58:1	3.16:1	73.17
70045	80045	100ct	100ct	25	125	20	3.6	12.1	12	3	1:1	2:1	67.04

70050	80050	120ct	12.8ct	3.2	125	20	3.3	13.2	1.6	.4	3.06:1	6.12:1	67.04
70055	80055	120ct	60ct	15	125	20	3.3	13.2	7.3	1.83	1.41:1	2.83:1	80.18
70060	80060	120ct	120ct	30	125	20	3.3	13.2	16	4	1:1	2:1	80.18
70065	80065	150ct	12ct	3	125	20	3	15	1.56	.39	3.54:1	7.07:1	77.63
70070	80070	150ct	50ct	12.5	125	20	3	15	6.6	1.65	1.73:1	3.46:1	80.18
70075	80075	150ct	100ct	25	125	20	3	15	14.5	3.63	1.22:1	2.45:1	80.18
70080	80080	150ct	150ct	37.5	125	20	3	15	18.3	4.58	1:1	2:1	80.18
70085	80085	150ct	600ct	150	125	20	3	15	72	18	1:2	1:1	80.18
70090	80090	200ct	200ct	50	125	20	2.5	22	25.8	6.7	1:1	2:1	80.18
70095	80095	300ct	12ct	3	125	20	2	33	1.56	.39	5:1	10:1	80.18
70100	80100	300ct	50ct	12.5	125	20	2	33	6.6	1.65	2.45:1	4.9:1	80.18
70105	80105	300ct	150ct	37.5	125	20	2	33	18.3	4.58	1:1.41	2.83:1	80.18
70110	80110	300ct	300ct	75	125	20	2	33	40.3	10.08	1:1	2:1	80.18
70115	80115	300ct	600ct	150	125	20	2	33	72	18	1:1.41	1.41:1	72.88
70120	80120	320ct	12.8ct	3.2	125	20	2	34	1.6	.4	5:1	10:1	85.97
70125	80125	400ct	40ct	10	125	20	1.8	49	4.7	1.18	3.16:1	6.32:1	85.97
70130	80130	400ct	120ct	30	125	20	1.8	49	16.3	4.08	1.83:1	3.65:1	85.97
70135	80135	400ct	200ct	50	125	20	1.8	49	27.3	6.83	1.41:1	2.83:1	85.97
70140	80140	400ct	400ct	100	125	20	1.8	49	49	12.25	1:1	2:1	78.18
70145	80145	400ct	1000ct	250	125	20	1.8	48	120	30	1:1.58	1.26:1	85.97
70150	80150	400ct	2000ct	500	125	20	1.8	49	270	67.5	1:2.24	1:1.12	85.97
70155	80155	400ct	4000ct	1000	125	20	1.8	49	476	119	1:3.16	1:1.58	85.97
70160	80160	500ct	12.8ct	3.2	125	20	1.6	54	1.6	0.4	6.25:1	12.5:1	78.18
70165	80165	500ct	16ct	4	125	20	1.6	54	2.3	0.58	5.6:1	11.2:1	78.18
70170	80170	500ct	50ct	12.5	125	20	1.6	54	6.6	1.65	3.16:1	6.32:1	78.18
70175	80175	500ct	150ct	37.5	125	20	1.6	54	18.3	4.58	1.83:1	3.65:1	78.18
70180	80180	500ct	500ct	125	125	20	1.6	54	65	16.3	1:1	2:1	85.97
70185	80185	*500ct	500ct	-	125	20	1.6	54	65	-	1:1	-	85.97
70190	80190	500ct	600ct	150	125	20	1.6	54	72	18	1:1.1	1.83:1	85.97
70195	80195	600ct	12.8ct	3.2	125	20	1.5	59	1.6	0.4	6.85:1	13.7:1	85.97
70200	80200	600ct	30ct	7.5	125	20	1.5	59	4.1	1.03	4.47:1	8.94:1	78.18
70205	80205	600ct	48ct	12	125	20	1.5	59	5.2	1.3	3.54:1	7.07:1	78.18
70210	80210	600ct	200ct	50	125	20	1.5	59	26.5	6.63	1.73:1	3.46:1	78.18
70215	80215	600ct	600ct	150	125	20	1.5	59	72	18	1:1	2:1	78.18
70220	80220	*600ct	600ct	-	125	20	1.5	59	72	-	1:1	-	85.97
70225	80225	600ct	1200ct	300	125	20	1.5	59	160	40	1:1.41	1.41:1	78.18
70230	80230	640ct	12.8ct	3.2	125	20	1.5	62	1.6	0.4	7.07:1	14.14:1	78.18
70235	80235	700ct	100ct	25	125	20	1.35	65	12	3	2.65:1	5.29:1	78.18
70240	80240	800ct	12.8ct	3.2	125	20	1.3	88	15	4	7.9:1	15.8:1	85.97
70245	80245	800ct	48ct	12	125	20	1.3	88	6.7	1.68	4.08:1	8.16:1	80.18
70250	80250	800ct	800ct	200	125	20	1.3	88	106	26.5	1:1	2:1	80.18
70255	80255	900ct	600ct	150	125	20	1.2	93	74	18.5	1.22:1	2.45:1	80.18
70260	80260	1000ct	12ct	3	125	20	1.2	120	1.55	0.39	9.13:1	18.3:1	88.24
70265	80265	1000ct	50ct	12.5	125	20	1.2	120	6.6	1.65	4.47:1	8.94:1	88.24
70270	80270	1000ct	1000ct	250	125	20	1.2	120	120	30	1:1	2:1	80.18
70275	80275	1060ct	12.8ct	3.2	125	20	1.2	125	1.6	0.4	9.1:1	18.2:1	88.24
70280	80280	1200ct	12.8ct	3.2	125	20	1	133	1.6	0.4	9.68:1	19.4:1	88.24
70285	80285	1200ct	500ct	125	125	20	1	133	65	16.25	1.55:1	3.1:1	88.24
70290	80290	1200ct	1200ct	300	125	20	1	133	160	40	1:1	2:1	88.24
70295	80295	*1200ct	1200ct	-	125	20	1	133	160	-	1:1	-	88.24
Gull Wing PICO Part Number	J Lead PICO Part Number	Prim Imped Ohms	Secondary Impedence Ohms Split Windings		Power Milliwatts		Primary Unbal DC Current ma	Prim DC Resist Ohms	Secondary DC Resistance Ohms		Turns/Ratio Prim/Sec		Pico Prices 1-9 *** (US \$)
			SER	PAR	1KHz and higher	400Hz and higher			SER CONN	PAR CONN	SEC SER CONN	SEC PAR CONN	
70300	80300	1500ct	12ct	3	125	20	1	180	1.55	0.39	11.2:1	22.4:1	88.24
70305	80305	1500ct	500ct	125	125	20	1	180	65	16.3	1.73:1	3.46:1	80.18
70310	80310	*1500ct	600ct	-	125	20	1	180	73	-	1.58:1	-	80.18
70315	80315	*1500ct	1500ct	-	125	20	1	180	215	-	1:1	-	88.24
70320	80320	1600ct	12.8ct	3.2	125	20	1	190	1.6	0.4	11.2:1	22.4:1	88.24

70325	80325	2000ct	8ct	2	125	20	0.8	218	1	0.25	15.8:1	31.6:1	88.24
70330	80330	2000ct	2000ct	500	125	20	0.8	218	260	65	1:1	2.1:1	88.24
70335	80335	*2000ct	2000ct	-	125	20	0.8	218	260	-	1:1	-	88.24
70340	80340	2000ct	8000ct	2000	125	20	0.8	218	830	207.5	1:2	1:1	88.24
70345	80345	2500ct	2500ct	625	125	20	0.75	280	280	70	1:1	2:1	85.97
70350	80350	3000ct	3000ct	725	125	20	0.65	330	330	82.5	1:1	2:1	85.97
70355	80355	*3000ct	3000ct	-	125	20	0.65	330	330	-	1:1	-	85.97
70360	80360	3600ct	3600ct	900	125	20	0.6	370	450	112.5	1:1	2:1	85.97
70365	80365	4000ct	16ct	4	125	20	0.57	400	2.3	0.58	15.8:1	31.6:1	85.97
70370	80370	4000ct	600ct	150	125	20	0.57	400	73	18.25	2.58:1	5.16:1	85.97
70375	80375	4000ct	1000ct	250	125	20	0.57	400	120	30	2:1	4:1	85.97
70380	80380	*4000ct	8000ct	-	125	20	0.57	400	1070	-	1:1.41	-	94.52
70385	80385	5000ct	500ct	125	125	20	0.5	540	65	16.25	3.16:1	6.32:1	85.97
70390	80390	5000ct	5000ct	1250	125	20	0.5	540	650	162.5	1:1	2:1	85.97
70395	80395	7500ct	50ct	12.5	125	20	.5	835	6.6	1.65	12.2:1	24.5:1	94.52
70400	80400	7500ct	100ct	25	125	20	0.4	835	12	3	8.66:1	17.3:1	86.84
70405	80405	7500ct	600ct	150	125	20	0.4	835	72	18	3.54:1	7.07:1	86.84
70410	80410	7500ct	2500ct	625	125	20	0.4	835	280	70	1.73:1	3.46:1	86.84
70415	80415	*7500ct	7500ct	-	125	20	0.4	835	1020	-	1:1	-	86.84
70420	80420	8000ct	12.8ct	3.2	125	20	0.4	865	1.6	0.4	25:1	50:1	94.52
70425	80425	8000ct	1000ct	250	125	20	0.4	865	120	30	2.83:1	5.66:1	94.52
70430	80430	*8000ct	1200ct	-	125	20	0.4	865	160	-	2.58:1	-	94.52
70435	80435	*9000ct	9000ct	-	125	20	0.4	1160	1160	-	1:1	-	94.85
70440	80440	10,000ct	12.8ct	3.2	125	20	0.36	1200	1.6	0.4	28:1	56:1	94.85
70445	80445	10,000ct	16ct	4	125	20	0.36	1200	1.77	0.44	25:1	50:1	86.84
70450	80450	10,000ct	100ct	25	125	20	0.36	1200	12	3	10:1	20:1	86.84
70455	80455	10,000ct	200ct	50	125	20	0.36	1200	27	6.75	7.07:1	14.14:1	86.84
70460	80460	10,000ct	500ct	125	125	20	0.36	1200	65	16.25	4.47:1	8.94:1	86.84
70465	80465	10,000ct	600ct	150	125	20	0.36	1200	72	18	4.08:1	8.16:1	86.84
70470	80470	10,000ct	1000ct	250	125	20	0.36	1200	120	30	3.16:1	6.32:1	86.84
70475	80475	10,000ct	1200ct	300	125	20	0.36	1200	160	40	2.88:1	5.77:1	86.84
70480	80480	10,000ct	1500ct	375	125	20	0.36	1200	215	53.8	2.58:1	5.16:1	88.24
70485	80485	10,000ct	2000ct	500	125	20	0.36	1200	260	65	2.24:1	4.47:1	88.24
70490	80490	10,000ct	5000ct	1250	125	20	0.36	1200	650	162.5	1.41:1	2.83:1	88.24
70495	80495	10,000ct	7500ct	1875	125	20	0.36	1200	1020	255	1.15:1	2.3:1	88.24
70500	80500	10,000ct	10,000ct	2500	125	20	0.36	1200	1200	300	1:1	2:1	80.18
70505	80505	*10,000ct	10,000ct	-	125	20	0.36	1200	1440	-	1:1	-	94.52
70510	80510	15,000ct	400ct	100	100	15	0.35	1420	43	10.75	6.12:1	12.24:1	86.84
70515	80515	15,000ct	500ct	125	100	15	0.35	1420	49	12.25	5.48:1	10.95:1	86.84
70520	80520	15,000ct	600ct	150	100	15	0.35	1420	68	17	5:1	10:1	86.84
70525	80525	15,000ct	10,000ct	2500	100	15	0.35	1420	1100	275	1.22:1	2.45:1	86.84
70530	80530	*15,000ct	15,000ct	-	100	15	0.35	1420	1730	-	1:1	-	94.52
70535	80535	15,000ct	15,000ct	3750	100	15	0.35	1420	1730	433	1:1	2:1	88.24
70540	80540	16,000ct	1000ct	250	100	15	0.35	1500	115	28.75	4:1	8:1	88.24

Gull Wing PICO Part Number	J Lead PICO Part Number	Prim Imped Ohms	Secondary Impedance Ohms Split Windings		Power Milliwatts		Primary Unbal DC Current ma	Prim DC Resist Ohms	Secondary DC Resistance Ohms		Turns/Ratio Prim/Sec		Pico Prices 1-9 *** (US \$)
			SER	PAR	1KHz and higher	400Hz and higher			SER CONN	PAR CONN	SEC SER CONN	SEC PAR CONN	
70545	80545	20,000ct	500ct	125	100	15	0.3	1600	60	15	6.33:1	12.65:1	94.52
70550	80550	20,000ct	600ct	150	100	15	0.3	1600	66	16.5	5.77:1	11.55:1	94.52
70555	80555	20,000ct	800ct	200	100	15	0.3	1600	94	23.5	5:1	10:1	94.52
70560	80560	20,000ct	1000ct	250	100	15	0.3	1600	106	26.5	4.47:1	8.94:1	94.52
70565	80565	20,000ct	5000ct	1250	100	15	0.3	1600	600	150	2:1	4:1	94.52
70570	80570	20,000ct	10,000ct	2500	100	15	0.3	1600	1100	275	1.41:1	2.83:1	94.52

\* Includes Electrostatic Shield

## INDUCTORS

All Inductors have split windings and measurements are listed for both series and parallel connections.  
Two values of inductance, each at a particular value of D.C. current are listed for each inductor.

Part Number	Part Number	Inductance		DC CURRENT ma	DC Resistance OHMS	Prices 1-9*** (US \$)
70825	80825	Series	10.0 2.75	0 2	2250	76.31
		Parallel	2.5 .65	0 4	560	
70830	80830	Series	5.5 1.5	0 2	1000	76.31
		Parallel	1.3 .40	0 4	250	
70835	80835	Series	.85 .25	1 6	240	76.31
		Parallel	.21 .06	2 12	60	
70840	80840	Series	.6 .15	0 5	144	76.31
		Parallel	.15 .04	0 10	36	

\*\*Discount Prices:

- 1-9 Net;
- 10-24 less 10%;
- 25-49 less 16%;
- 50-99 less 23%;
- 100-499 less 30%

Ordering Instructions:

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

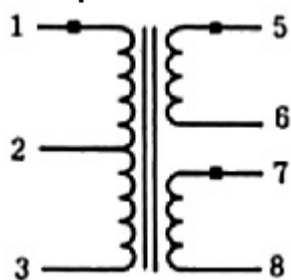
**Delivery--stock to one week for sample orders.**

## FEATURES

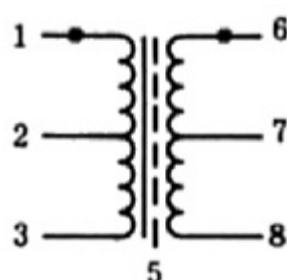
- Extreme resistance to thermal shock
- Ultra Miniature size
- PICO is approved QPL source (MIL-PRF-27)
- Magnetic shield designs available
- Electrostatic shielding can be added
- Variation of standards designs available
- Every unit in this catalog can be made with a 300 thermal cycle guarantee using PICO's special SR construction. Contact factory for details.

## Schematics

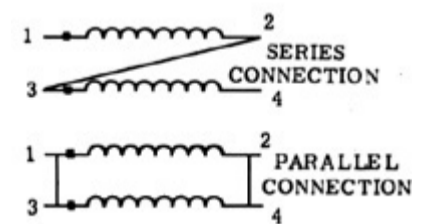
Schematics for Transformers with Split Secondaries



Schematics for Transformers with Electrostatic Shield

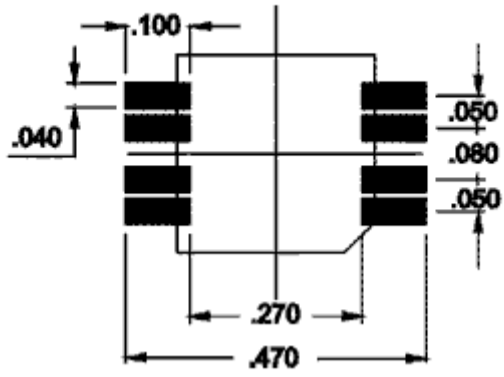


Schematics for Inductors



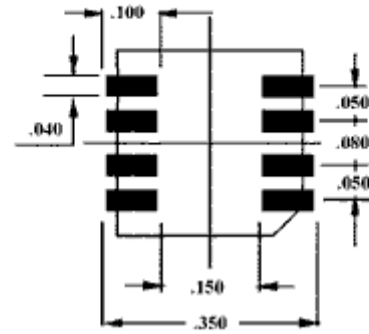
**RECOMMENDED LAND PATTERN DIMENSIONS**

**PICO 70000 SERIES.**



**RECOMMENDED LAND PATTERN DIMENSIONS**

**PICO 80000 SERIES.**



[Click Here For Thru Hole Version of the 70000 and 80000 Series](#) [3]

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

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**PICO Electronics, Inc.**

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

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