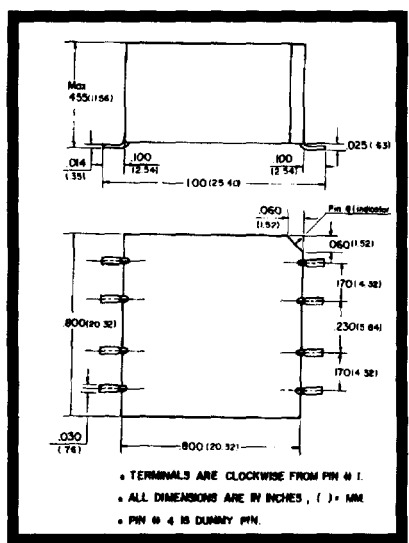
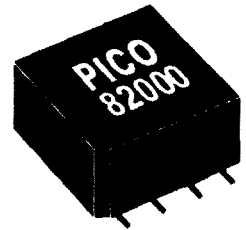


**SURFACE MOUNT**  
 PICO surface mount units utilize materials and methods to withstand extreme temperature of vapor phase, I.R., and other reflow procedures without degradation of electrical or mechanical characteristics

**PICO's  
 ultra-miniature  
 surface mount  
 transformers  
 SERIES 82000**



**For Land Pattern  
 Dimensions  
 See Pg. 60  
 Fig. 8**

**SPECIFICATIONS**

- **MIL-PRF-27**.....  
 All units manufactured to MIL-PRF-27, Grade 5, Class S
- **FREQUENCY RESPONSE**.....  
 ±3db, 75 Hz-30 KHz at 1.0 Milliwatt.
- **MAXIMUM DISTORTION**.....  
 5% With Rated Power Level at 1 KHz, 300 Hz and 75 Hz.
- **DIELECTRIC STRENGTH**.....  
 All Units Tested at 200 V RMS.
- **INSULATION RESISTANCE**.....  
 Greater Than 10,000 Megohms at 300 V DC.
- **WEIGHT**.....  
 12 Grams
- **OPERATING TEMPERATURE**.....  
 -55°C to +130°C
- **TERMINALS**.....  
 Solderability per MIL-STD-202 Method 208.
- **THERMAL SHOCK**.....  
 25 Cycles, Method 107, MIL-STD-202, Test Condition -55°C to +130°C

PICO PART NUMBER	PRIMARY IMPEDANCE OHMS	SECONDARY IMPEDANCE OHMS SPLIT WINDINGS		POWER WATTS			PRIMARY UNBALANCED DC CURRENT ma	PRIMARY DC RESISTANCE OHMS	SECONDARY DC RESISTANCE OHMS		TURNS/RATIO PRIM/SEC		PRICES 1-9***
		SER	PAR	1KHz and higher	300 Hz and higher	75 Hz and higher			SER CONN	PAR CONN	SEC SER CONN	SEC PAR CONN	
82003	20 ct	8 ct	2	1.5	.9	.03	22	1.6	.76	.19	1.58:1	3.16:1	32.63
82005	20 ct	20 ct	5	1.5	.9	.03	22	1.6	1.9	.48	1:1	2:1	32.63
82010	32 ct	32 ct	8	1.5	.9	.03	17.5	2.56	3	.75	1:1	2:1	32.63
82015	40 ct	40 ct	10	1.5	.9	.03	16	3.2	3.8	.95	1:1	2:1	32.63
82018	48 ct	16 ct	4	1.5	.9	.03	14.5	3.84	1.52	.38	1.73:1	3.46:1	32.63
82020	50 ct	50 ct	12.5	1.5	.9	.03	14	4	4.75	1.19	1:1	2:1	32.63
82025	80 ct	32 ct	8	1.5	.9	.03	11	6.4	3	.75	1.58:1	3.16:1	32.63
82028	100 ct	40 ct	10	1.5	.9	.03	10	8	3.8	.95	1.58:1	3.16:1	32.63
82030	100 ct	100 ct	25	1.5	.9	.03	10	8	9.5	2.38	1:1	2:1	32.63
82035	120 ct	12.8 ct	3.2	1.5	.9	.03	9	9.6	1.22	.3	3.06:1	6.12:1	32.63
82040	120 ct	60 ct	15	1.5	.9	.03	9	9.6	5.7	1.4	1.41:1	2.83:1	32.63
82045	120 ct	120 ct	30	1.5	.9	.03	9	9.6	11.4	2.85	1:1	2:1	32.63
82050	150 ct	12 ct	3	1.5	.9	.03	8	12	1.14	.29	3.54:1	7.08:1	32.63
82055	150 ct	50 ct	12.5	1.5	.9	.03	8	12	4.75	1.19	1.73:1	3.46:1	32.63
82060	150 ct	100 ct	25	1.5	.9	.03	8	12	9.5	2.38	1.22:1	2.44:1	32.63
82065	150 ct	150 ct	37.5	1.5	.9	.03	8	12	14.3	3.56	1:1	2:1	32.63
82070	150 ct	600 ct	150	1.5	.9	.03	8	12	57	14.3	1:2	1:1	32.63
82075	200 ct	200 ct	50	1.5	.9	.03	7	16	19	4.75	1:1	2:1	32.63
82080	300 ct	12 ct	3	1.5	.9	.03	5.5	24	1.14	.29	5:1	10:1	32.63
82085	300 ct	50 ct	12.5	1.5	.9	.03	5.5	24	4.75	1.19	2.45:1	4.9:1	32.63
82090	300 ct	150 ct	37.5	1.5	.9	.03	5.5	24	14.25	3.56	1.41:1	2.83:1	32.63
82095	300 ct	300 ct	75	1.5	.9	.03	5.5	24	28.5	7.13	1:1	2:1	32.63
82100	300 ct	600 ct	150	1.5	.9	.03	5.5	24	57	14.25	1.41:1	1.41:1	32.63
82105	320 ct	12.8 ct	3.2	1.5	.9	.03	5.5	25.6	1.22	.3	5:1	10:1	32.63
82110	400 ct	40 ct	10	1.5	.9	.03	5	32	3.8	.95	3.16:1	6.32:1	32.63
82115	400 ct	120 ct	30	1.5	.9	.03	5	32	11.4	2.85	1.83:1	3.65:1	32.63
82120	400 ct	200 ct	50	1.5	.9	.03	5	32	19	4.75	1.41:1	2.83:1	32.63
82125	400 ct	400 ct	100	1.5	.9	.03	5	32	38	9.5	1:1	2:1	32.63
82130	400 ct	1000 ct	250	1.5	.9	.03	5	32	95	23.8	1:1.58	1.26:1	32.63
82135	400 ct	2000 ct	500	1.5	.9	.03	5	32	190	47.5	1:2.24	1:1.12	32.63
82140	400 ct	4000 ct	1000	1.5	.9	.03	5	32	380	95	1:3.16	1:1.58	32.63
82142	500 ct	12.8 ct	3.2	1.5	.9	.03	4.5	40	1.22	.3	6.25:1	12.5:1	32.63
82144	500 ct	16 ct	4	1.5	.9	.03	4.5	40	1.52	.38	5.6:1	11.2:1	32.63
82145	500 ct	50 ct	12.5	1.5	.9	.03	4.5	40	4.75	1.19	3.16:1	6.32:1	32.63
82147	500 ct	150 ct	37.5	1.5	.9	.03	4.5	40	14.25	3.56	1.83:1	3.65:1	32.63
82150	500 ct	500 ct	125	1.5	.9	.03	4.5	40	47.5	11.88	1:1	2:1	32.63
82155	*500 ct	500 ct	-	1.5	.9	.03	4.5	40	47.5	-	1:1	-	33.98
82160	500 ct	600 ct	150	1.5	.9	.03	4.5	40	57	14.25	1:1.1	1.83:1	32.63
82165	600 ct	12.8 ct	3.2	1.5	.9	.03	4	48	1.22	.3	6.85:1	13.7:1	28.50
82167	600 ct	30 ct	7.5	1.5	.9	.03	4	48	2.85	.71	4.47:1	8.94:1	28.50
82170	600 ct	48 ct	12	1.5	.9	.03	4	48	4.56	1.14	3.54:1	7.07:1	28.50
82175	600 ct	200 ct	50	1.5	.9	.03	4	48	19	4.75	1.73:1	3.46:1	28.50
82180	600 ct	600 ct	150	1.5	.9	.03	4	48	57	14.25	1:1	2:1	32.63
82185	*600 ct	600 ct	-	1.5	.9	.03	4	48	57	-	1:1	-	29.68
82186	*600 ct	900 ct	-	1.5	.9	.03	4	48	85.5	-	1:1.22	-	29.68
82187	600 ct	1200 ct	300	1.5	.9	.03	4	48	114	28.5	1:1.41	1.41:1	28.50
82190	640 ct	12.8 ct	3.2	1.5	.9	.03	4	51.2	1.22	.3	7.07:1	14.14:1	28.50
82195	700 ct	100 ct	25	1.5	.9	.03	3.5	56	9.5	2.38	2.65:1	5.29:1	28.50
82200	800 ct	12.8 ct	3.2	1.5	.9	.03	3.5	64	1.22	.3	7.91:1	15.8:1	28.50
82205	800 ct	48 ct	12	1.5	.9	.03	3.5	64	4.56	1.14	4.08:1	8.16:1	28.50
82210	800 ct	800 ct	200	1.5	.9	.03	3.5	64	76	19	1:1	2:1	28.50
82215	900 ct	600 ct	150	1.5	.9	.03	3	72	57	14.3	1.23:1	2.45:1	28.50
82217	*900 ct	900 ct	-	1.5	.9	.03	3	72	85.5	-	1:1	-	29.68
82220	1000 ct	12 ct	3	1.5	.9	.03	3	80	1.14	.29	9.13:1	18.26:1	28.50
82225	1000 ct	50 ct	12.5	1.5	.9	.03	3	80	4.75	1.19	4.47:1	8.94:1	28.50
82230	1000 ct	1000 ct	250	1.5	.9	.03	3	80	95	23.8	1:1	2:1	28.50
82235	1060 ct	12.8 ct	3.2	1.5	.9	.03	3	85	1.22	.3	9.1:1	18.2:1	28.50
82240	1200 ct	12.8 ct	3.2	1.5	.9	.03	3	96	1.22	.3	9.68:1	19.4:1	28.50
82245	1200 ct	500 ct	125	1.5	.9	.03	3	96	47.5	11.88	1.55:1	3.1:1	28.50
82250	1200 ct	1200 ct	300	1.5	.9	.03	3	96	114	28.5	1:1	2:1	28.50
82255	*1200 ct	1200 ct	-	1.5	.9	.03	3	96	114	-	1:1	-	29.68
82260	1500 ct	12 ct	3	1.5	.9	.03	2.5	120	1.14	.29	11.16:1	22.36:1	28.50
82265	1500 ct	500 ct	125	1.5	.9	.03	2.5	120	47.5	11.88	1.73:1	3.46:1	28.50
82270	*1500 ct	600 ct	-	1.5	.9	.03	2.5	120	57	-	1.58:1	-	29.68
82275	*1500 ct	1500 ct	-	1.5	.9	.03	2.5	120	142	-	1:1	-	29.68
82280	1600 ct	12.8 ct	3.2	1.5	.9	.03	2.5	128	1.22	.3	11.18:1	22.36:1	28.50
82283	2000 ct	8 ct	2	1.5	.9	.03	2.2	160	.76	.19	15.8:1	31.6:1	28.50
82285	2000 ct	2000 ct	500	1.5	.9	.03	2.2	160	190	47.5	1:1	2:1	28.50
82290	*2000 ct	2000 ct	-	1.5	.9	.03	2.2	160	190	-	1:1	-	29.68
82295	2000 ct	8000 ct	2000	1.5	.9	.03	2.2	160	780	190	1:2	1:1	28.50
82297	2500 ct	2500 ct	625	1.5	.9	.03	2	200	238	59.5	1:1	2:1	28.50
82300	3000 ct	3000 ct	750	1.5	.9	.03	1.8	240	285	71.3	1:1	2:1	28.50
82305	*3000 ct	3000 ct	-	1.5	.9	.03	1.8	240	285	-	1:1	-	29.68

\*INCLUDES ELECTROSTATIC SHIELD

\*\*MINIATURIZED TELEPHONE COUPLING APPLICATION

\*\*\*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, New York

**Delivery -  
 stock to one week**

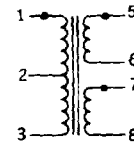
**For immediate engineering assistance or to place an order - Call Toll Free 800-431-1064**

# PICO's ultra-miniature surface mount transformers SERIES 82000

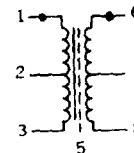
## FEATURES

- EXTREME RESISTANCE TO THERMAL SHOCK
- ULTRA MINIATURE SIZE
- PICO IS APPROVED QPL SOURCE (MIL-PRF-27)
- MAGNETIC SHIELD AVAILABLE
- ELECTROSTATIC SHIELDING CAN BE ADDED.
- VARIATION OF STANDARD DESIGNS AVAILABLE
- PRIMARY AND SECONDARY WINDINGS CAN BE USED EITHER AS INPUT OR OUTPUT
- EVERY UNIT IN THIS CATALOG CAN BE MADE WITH A 300 THERMAL CYCLE GUARANTEE USING PICO'S SPECIAL SR CONSTRUCTION. CONTACT FACTORY FOR DETAILS.

### SCHEMATIC FOR TRANSFORMERS WITH SPLIT WINDING



### SCHEMATIC FOR TRANSFORMERS WITH ELECTROSTATIC SHIELD



## PICO Electronics, Inc.

143 Sparks Avenue,  
Pelham, NY 10803-1837  
FAX 914-738-8225

[www.picoelectronics.com](http://www.picoelectronics.com)  
E-Mail: [info@picoelectronics.com](mailto:info@picoelectronics.com)

PICO PART NUMBER	PRIMARY IMPEDANCE OHMS	SECONDARY IMPEDANCE OHMS		POWER WATTS			PRIMARY UNBALANCED DC CURRENT ma	PRIMARY DC resistance OHMS	SECONDARY DC RESISTANCE OHMS		TURNS/RATIO PRIM/SEC		PRICES 1-9***
		SER	PAR	1KHz and higher	300 Hz and higher	75 Hz and higher			SER CONN	PAR CONN	SEC SER CONN	SEC PAR CONN	
82310	3600 ct	3600 ct	900	1.5	.9	.03	1.7	288	342	86	1:1	2:1	32.63
82312	4000 ct	16 ct	4	1.5	.9	.03	1.6	320	1.52	.38	15.8:1	31.62:1	32.63
82314	4000 ct	800 ct	150	1.5	.9	.03	1.6	320	57	14.3	2.58:1	5.16:1	32.63
82315	4000 ct	1000 ct	250	1.5	.9	.03	1.6	320	95	23.8	2:1	4:1	32.63
82320	*4000 ct	8000 ct	-	1.5	.9	.03	1.6	320	760	-	1:1.41	-	33.96
82325	5000 ct	500 ct	125	1.5	.9	.03	1.4	400	47.5	11.88	3.16:1	6.32:1	32.63
82330	5000 ct	5000 ct	1250	1.5	.9	.03	1.4	400	475	119	1:1	2:1	32.63
82335	7500 ct	50 ct	12.5	1.3	.9	.03	1.2	600	4.75	1.19	12.25:1	24.5:1	36.34
82340	7500 ct	100 ct	25	1.3	.9	.03	1.2	600	9.5	2.38	8.66:1	17.32:1	36.34
82345	7500 ct	800 ct	150	1.3	.9	.03	1.2	600	57	14.3	3.54:1	7.07:1	36.34
82350	7500 ct	2500 ct	625	1.3	.9	.03	1.2	600	238	59.5	1.73:1	3.46:1	36.34
82355	*7500 ct	7500 ct	-	1.3	.9	.03	1.2	600	713	-	1:1	-	38.75
82360	8000 ct	12.8 ct	3.2	1.2	.9	.03	1.1	640	1.22	.3	25:1	50:1	36.34
82365	8000 ct	1000 ct	250	1.2	.9	.03	1.1	640	95	23.8	2.83:1	5.66:1	36.34
82370	*8000 ct	1200 ct	-	1.2	.9	.03	1.1	640	114	-	2.58:1	-	38.75
82375	*9000 ct	9000 ct	-	1.1	.9	.03	1.1	720	855	-	1:1	-	38.75
82380	10,000 ct	12.8 ct	3.2	1.0	.9	.03	1	800	1.22	.3	28:1	56:1	36.34
82385	10,000 ct	16 ct	4	1.0	.9	.03	1	800	1.52	.38	25:1	50:1	36.34
82390	10,000 ct	100 ct	25	1.0	.9	.03	1	800	9.5	2.38	10:1	20:1	36.34
82395	10,000 ct	200 ct	50	1.0	.9	.03	1	800	19	4.75	7.07:1	14.14:1	36.34
82400	10,000 ct	500 ct	125	1.0	.9	.03	1	800	47.5	11.88	4.47:1	8.94:1	36.34
82405	10,000 ct	600 ct	150	1.0	.9	.03	1	800	57	14.25	4.08:1	8.16:1	36.34
82410	10,000 ct	1000 ct	250	1.0	.9	.03	1	800	95	23.8	3.16:1	6.32:1	36.34
82415	10,000 ct	1200 ct	300	1.0	.9	.03	1	800	114	28.5	2.89:1	5.77:1	36.34
82420	10,000 ct	1500 ct	375	1.0	.9	.03	1	800	143	35.8	2.58:1	5.16:1	36.34
82425	10,000 ct	2000 ct	500	1.0	.9	.03	1	800	190	47.5	2.24:1	4.47:1	36.34
82430	10,000 ct	5000 ct	1250	1.0	.9	.03	1	800	475	119	1.41:1	2.83:1	36.34
82435	10,000 ct	7500 ct	1875	1.0	.9	.03	1	800	713	178	1.16:1	2.31:1	36.34
82440	10,000 ct	10,000 ct	2500	1.0	.9	.03	1	800	950	238	1:1	2:1	36.34
82445	*10,000 ct	10,000 ct	-	1.0	.9	.03	1	800	950	-	1:1	-	38.75
82450	15,000 ct	400 ct	100	.66	.66	.03	.8	1200	38	9.5	6.12:1	12.25:1	36.34
82452	15,000 ct	500 ct	125	.66	.66	.03	.8	1200	48	12	5.48:1	10.95:1	36.34
82455	15,000 ct	600 ct	150	.66	.66	.03	.8	1200	57	14.3	5:1	10:1	36.34
82460	15,000 ct	10,000 ct	2500	.66	.66	.03	.8	1200	950	238	1.22:1	2.45:1	36.34
82465	*15,000 ct	15,000 ct	-	.66	.66	.03	.8	1200	1430	-	1:1	-	38.75
82470	15,000 ct	15,000 ct	3750	.66	.66	.03	.8	1200	1430	357	1:1	2:1	36.34
82475	16,000 ct	1000 ct	250	.62	.62	.03	.8	1280	95	23.8	4:1	8:1	36.34
82480	20,000 ct	500 ct	125	.5	.5	.03	.7	1600	47.5	11.88	6.32:1	12.65:1	38.75
82485	20,000 ct	600 ct	150	.5	.5	.03	.7	1600	57	14.25	5.77:1	11.55:1	38.75
82490	20,000 ct	800 ct	200	.5	.5	.03	.7	1600	76	19	5:1	10:1	38.75
82495	20,000 ct	1000 ct	250	.5	.5	.03	.7	1600	95	23.8	4.47:1	8.94:1	38.75
82500	20,000 ct	5000 ct	1250	.5	.5	.03	.7	1600	475	119	2:1	4:1	38.75
82505	20,000 ct	10,000 ct	2500	.5	.5	.03	.7	1600	950	238	1.41:1	2.83:1	38.75
82510	*20,000 ct	20,000 ct	-	.5	.5	.03	.7	1600	1900	-	1:1	-	40.29
82515	25,000 ct	500 ct	125	.4	.4	.03	.6	2000	47.5	11.88	7.07:1	14.14:1	38.75
82520	25,000 ct	1000 ct	250	.4	.4	.03	.6	2000	95	23.8	5:1	10:1	38.75
82525	30,000 ct	50 ct	12.5	.33	.33	.03	.6	2400	4.75	1.19	24.5:1	49:1	40.29
82530	30,000 ct	1200 ct	300	.33	.33	.03	.6	2400	114	28.5	5:1	10:1	40.29
82532	30,000 ct	500 ct	125	.33	.33	.03	.6	2400	47.5	11.88	7.7:1	15.5:1	40.29
80534	30,000 ct	200 ct	50	.33	.33	.03	.6	2400	19	4.75	12.2:1	24.5:1	40.29
82535	30,000 ct	5000 ct	1250	.33	.33	.03	.6	2400	475	119	2.45:1	4.9:1	40.29
82540	30,000 ct	10,000 ct	2500	.33	.33	.03	.6	2400	950	238	1.73:1	3.46:1	40.29
82545	*30,000 ct	30,000 ct	-	.33	.33	.03	.6	2400	2850	-	1:1	-	43.40
82550	40,000 ct	400 ct	100	.25	.25	.03	.5	3200	38	9.5	10:1	20:1	43.40
82555	40,000 ct	2000 ct	500	.25	.25	.03	.5	3200	190	47.5	4.47:1	8.94:1	43.40
82560	40,000 ct	4000 ct	1000	.25	.25	.03	.5	3200	380	95	3.16:1	6.32:1	43.40
82565	40,000 ct	20,000 ct	5000	.25	.25	.03	.5	3200	1900	475	1.41:1	2.83:1	43.40
82570	*40,000 ct	40,000 ct	-	.25	.25	.03	.5	3200	3800	-	1:1	-	46.18
82575	50,000 ct	200 ct	50	.2	.2	.03	.4	4000	19	4.75	15.8:1	31.6:1	48.18
82577	50,000 ct	500 ct	125	.2	.2	.03	.4	4000	47.5	11.88	10:1	20:1	48.18
82578	50,000 ct	600 ct	150	.2	.2	.03	.4	4000	57	14.3	9.13:1	18.26:1	48.18
82579	50,000 ct	50,000 ct	12500	.2	.2	.03	.4	4000	4750	1190	1:1	2:1	48.18
82580	60,000 ct	15,000 ct	3750	.16	.16	.03	.4	4800	1430	358	2:1	4:1	52.05
82585	62,500 ct	50 ct	12.5	.16	.16	.03	.4	5000	4.75	1.19	35.4:1	70.7:1	52.05
82587	80,000 ct	15,000 ct	3750	.12	.12	.03	.3	6400	1430	358	2.3:1	4.6:1	52.05
82590	90,000 ct	10,000 ct	2500	.11	.11	.03	.3	7200	950	238	3:1	6:1	52.05
82595	95,000 ct	15,000 ct	3750	.1	.1	.03	.3	7600	1430	358	2.5:1	5:1	54.63
82600	100,000 ct	60 ct	15	.1	.1	.03	.3	8000	5.7	1.43	40.8:1	81.6:1	54.63
82605	100,000 ct	100 ct	25	.1	.1	.03	.3	8000	9.5	2.38	31.6:1	63.2:1	54.63
82610	100,000 ct	500 ct	125	.1	.1	.03	.3	8000	47.5	11.88	14.1:1	28.3:1	54.63
82613	100,000 ct	1000 ct	250	.1	.1	.03	.3	8000	95	23.8	10:1	20:1	54.63
82614	100,000 ct	2000 ct	500	.1	.1	.03	.3	8000	190	47.5	7.07:1	14.14:1	54.63
82615	100,000 ct	10,000 ct	2500	.1	.1	.03	.3	8000	950	238	3.16:1	6.32:1	54.63
82820	135,000 ct	82 ct	20.5	.07	.07	.03	.2	10800	7.8	1.9	40.6:1	81.2:1	57.07

\*INCLUDES ELECTROSTATIC SHIELD

\*\*\*Discount Prices: 1-9 Net: 10-24 less 10%; 25-49 less 16%; 50-99 less 23%; 100-499 less 30%  
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