

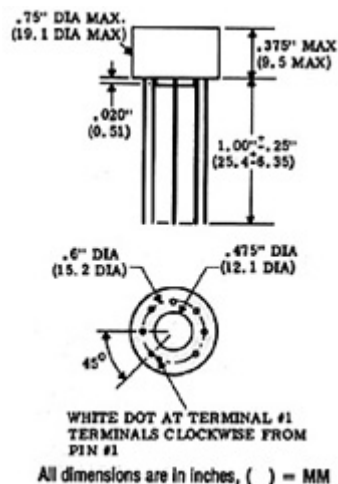
Ultra Miniature Transformers

R Series Thru Hole

Specifications:

- **MIL-PRF-27:** All units manufactured to MIL-PRF-27, Grade 5, Class S.
- **FREQUENCY RESPONSE:** $\pm 3\text{db}$, 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:** Solid .016 Diameter Conductor. Solderability per MIL-STD-202 Method 208.
- **THERMAL SHOCK:** 25 Cycles, Method 107, MIL-STD-202, Test Condition -55° C to +130° C

[For Surface Mount Equivalent of this series click here](#)



[Larger size drawing of R Series](#)

Ultra Miniature Transformers: R Series													
Pico Part Number	Prim. Imped. Ohms	Sec. Imped. Ohms Split Windings		Power Watts			Prim. Unbal. DC Curr. ma	Prim. DC Resist. Ohms	Sec. DC Resist. Ohms		Turns Ratio Prim/Sec.		Prices 1-9 *** (US \$)
		SER	PAR	1 KHz and higher	300 Hz and higher	75 Hz and higher			Ser Conn	Par Conn	Sec Ser Conn	Sec Par Conn	
R-20003	20ct	8ct	2	1.5	.9	.03	22	1.6	.76	.19	1.58:1	3.16:1	102.06
R-20005	20ct	20ct	5	1.5	.9	.03	22	1.6	1.9	.48	1:1	2:1	102.06
R-20010	32ct	32ct	8	1.5	.9	.03	17.5	2.56	3	.75	1:1	2:1	102.06
R-20015	40ct	40ct	10	1.5	.9	.03	16	3.2	3.8	.95	1:1	2:1	102.06
R-20018	48ct	16ct	4	1.5	.9	.03	14.5	3.84	1.52	.38	1.73:1	3.46:1	102.06

R-20020	50ct	50ct	12.5	1.5	.9	.03	14	4	4.75	1.19	1:1	2:1	102.06
R-20025	80ct	32ct	8	1.5	.9	.03	11	6.4	3	.75	1.58:1	3.16:1	102.06
R-20028	100ct	40ct	10	1.5	.9	.03	10	8	3.8	.95	1.58:1	3.16:1	102.06
R-20030	100ct	100ct	25	1.5	.9	.03	10	8	9.5	2.38	1:1	2:1	102.06
R-20035	120ct	12.8ct	3.2	1.5	.9	.03	9	9.6	1.22	.3	3.06:1	6.12:1	102.06

Ultra Miniature Transformers: R Series

Pico Part Number	Prim. Imped. Ohms	Sec. Imped. Ohms Split Windings		Power Watts			Prim. Unbal. DC Curr. ma	Prim. DC Resist. Ohms	Sec. DC Resist. Ohms		Turns Ratio Prim/Sec.		Prices 1-9 *** (US \$)
		SER	PAR	1 KHz and higher	300 Hz and higher	75 Hz and higher			Ser Conn	Par Conn	Sec Ser Conn	Sec Par Conn	
R-20040	120ct	60ct	15	1.5	.9	.03	9	9.6	5.7	1.4	1.14:1	2.83:1	102.06
R-20045	120ct	120ct	30	1.5	.9	.03	9	9.6	11.4	2.85	1:1	2:1	102.06
R-20050	150ct	12ct	3	1.5	.9	.03	8	12	1.14	.29	3.54:1	7.08:1	102.06
R-20055	150ct	50ct	12.5	1.5	.9	.03	8	12	4.75	1.19	1.73:1	3.46:1	102.06
R-20060	150ct	100ct	25	1.5	.9	.03	8	12	9.5	2.38	1.22:1	2.44:1	102.06
R-20065	150ct	150ct	37.5	1.5	.9	.03	8	12	14.3	3.56	1:1	2:1	102.06
R-20070	150ct	600ct	150	1.5	.9	.03	8	12	57	14.3	1:2	1:1	102.06
R-20075	200ct	200ct	50	1.5	.9	.03	7	16	19	4.75	1:1	2:1	102.06
R-20080	300ct	12ct	3	1.5	.9	.03	5.5	24	1.14	.29	5:1	10:1	102.06
R-20085	300ct	50ct	12.5	1.5	.9	.03	5.5	24	4.75	1.19	2.45:1	4.9:1	102.06
R-20090	300ct	150ct	37.5	1.5	.9	.03	5.5	24	14.25	3.56	1.41:1	2.83:1	102.06
R-20095	300ct	300ct	75	1.5	.9	.03	5.5	24	28.5	7.13	1:1	2:1	102.06
R-20100	300ct	600ct	150	1.5	.9	.03	5.5	24	57	14.25	1:1.41	1.41:1	102.06
R-20105	320ct	12.8ct	3.2	1.5	.9	.03	5.5	25.6	1.22	.3	5:1	10:1	102.06
R-20110	400ct	40ct	10	1.5	.9	.03	5	32	3.8	.95	3.16:1	6.32:1	102.06
R-20115	400ct	120ct	30	1.5	.9	.03	5	32	11.4	2.85	1.83:1	3.65:1	102.06
R-20120	400ct	200ct	50	1.5	.9	.03	5	32	19	4.75	1.41:1	2.83:1	102.06
R-20125	400ct	400ct	100	1.5	.9	.03	5	32	38	9.5	1:1	2:1	102.06
R-20130	400ct	1000ct	250	1.5	.9	.03	5	32	95	23.8	1:1.58	1.26:1	102.06
R-20135	400ct	2000ct	500	1.5	.9	.03	5	32	190	47.5	1:2.24	1:1.12	102.06

R-20140	400ct	4000ct	1000	1.5	.9	.03	5	32	380	95	1:3.16	1:1.58	102.06
R-20142	500ct	12.8ct	3.2	1.5	.9	.03	4.5	40	1.22	.3	6.25:1	12.5:1	102.06
R-20144	500ct	16ct	4	1.5	.9	.03	4.5	40	1.52	.38	5.6:1	11.2:1	102.06
R-20145	500ct	50ct	12.5	1.5	.9	.03	4.5	40	4.75	1.19	3.16:1	6.32:1	102.06
R-20147	500ct	150ct	37.5	1.5	.9	.03	4.5	40	14.25	3.56	1.83:1	3.65:1	102.06
R-20150	500ct	500ct	125	1.5	.9	.03	4.5	40	47.5	11.88	1:1	2:1	102.06
R-20155	*500ct	500ct	-	1.5	.9	.03	4.5	40	47.5	-	1:1	-	108.56
R-20160	500ct	600ct	150	1.5	.9	.03	4.5	40	57	14.25	1:1.1	1.83:1	102.06
R-20165	600ct	12.8ct	3.2	1.5	.9	.03	4	48	1.22	.3	6.85:1	13.7:1	102.06
R-20167	600ct	30ct	7.5	1.5	.9	.03	4	48	2.85	.71	4.47:1	8.94:1	102.06
R-20170	600ct	48ct	12	1.5	.9	.03	4	48	4.56	1.14	3.54:1	7.07:1	102.06
R-20175	600ct	200ct	50	1.5	.9	.03	4	48	19	4.75	1.73:1	3.46:1	102.06
R-20180**	600ct	600ct	150	1.5	.9	.03	4	48	57	14.25	1:1	2:1	102.06
R-20185**	*600ct	600ct	-	1.5	.9	.03	4	48	57	-	1:1	-	108.56
R-20186**	*600ct	900ct	-	1.5	.9	.03	4	48	85.5	-	1:1.22	-	108.56
R-20187**	600ct	1200ct	300	1.5	.9	.03	4	48	114	28.5	1:1.41	1.41:1	102.06
R-20190	640ct	12.8ct	3.2	1.5	.9	.03	4	51.2	1.22	.3	7.07:1	14.14:1	102.06
R-20195	700ct	100ct	25	1.5	.9	.03	3.5	56	9.5	2.38	2.65:1	5.29:1	102.06
R-20200	800ct	12.8ct	3.2	1.5	.9	.03	3.5	64	1.22	.3	7.91:1	15.8:1	102.06
R-20205	800ct	48ct	12	1.5	.9	.03	3.5	64	4.56	1.14	4.08:1	8.16:1	102.06
R-20210	800ct	800ct	200	1.5	.9	.03	3.5	64	76	19	1:1	2:1	102.06
R-20215	900ct	600ct	150	1.5	.9	.03	3	72	57	14.3	1.23:1	2.45:1	102.06
R-20217**	*900ct	900ct	-	1.5	.9	.03	3	72	85.5	-	1:1	-	108.56
R-20220	1000ct	12ct	3	1.5	.9	.03	3	80	1.14	.29	9.13:1	18.26:1	102.06
R-20225	1000ct	50ct	12.5	1.5	.9	.03	3	80	4.75	1.19	4.47:1	8.94:1	102.06
R-20230	1000ct	1000ct	250	1.5	.9	.03	3	80	95	23.8	1:1	2:1	102.06
R-20235	1060ct	12.8ct	3.2	1.5	.9	.03	3	85	1.22	.3	9.1:1	18.2:1	102.06
R-20240	1200ct	12.8ct	3.2	1.5	.9	.03	3	96	1.22	.3	9.68:1	19.4:1	102.06
R-20245	1200ct	500ct	125	1.5	.9	.03	3	96	47.5	11.88	1.55:1	3.1:1	102.06
R-20250	1200ct	1200ct	300	1.5	.9	.03	3	96	114	28.5	1:1	2:1	102.06

Ultra Miniature Transformers: R Series													
Pico Part Number	Prim. Imped. Ohms	Sec. Imped. Ohms Split Windings		Power Watts			Prim. Unbal. DC Curr. ma	Prim. DC Resist. Ohms	Sec. DC Resist. Ohms		Turns Ratio Prim/Sec.		Prices 1-9 *** (US \$)
		SER	PAR	1 KHz and higher	300 Hz and higher	75 Hz and higher			Ser Conn	Par Conn	Sec Ser Conn	Sec Par Conn	

R-20255	*1200ct	1200ct	-	1.5	.9	.03	3	96	114	-	1:1	-	108.56
R-20260	1500ct	12ct	3	1.5	.9	.03	2.5	120	1.14	.29	11.18:1	22.36:1	102.06
R-20265	1500ct	500ct	125	1.5	.9	.03	2.5	120	47.5	11.88	1.73:1	3.46:1	102.06
R-20270	*1500ct	600ct	-	1.5	.9	.03	2.5	120	57	-	1.58:1	-	108.56
R-20275	*1500ct	1500ct	-	1.5	.9	.03	2.5	120	142	-	1:1	-	108.56
R-20280	1600ct	12.8ct	3.2	1.5	.9	.03	2.5	128	1.22	3	11.18:1	22.36:1	102.06
R-20283	2000ct	8ct	2	1.5	.9	.03	2.2	160	.76	.19	15.8:1	31.6:1	102.06
R-20285	2000ct	2000ct	500	1.5	.9	.03	2.2	160	190	47.5	1:1	2:1	102.06
R-20290	*2000ct	2000ct	-	1.5	.9	.03	2.2	160	190	-	1:1	-	108.56
R-20295	2000ct	8000ct	2000	1.5	.9	.03	2.2	160	760	190	1:2	1:1	102.06
R-20297	2500ct	2500ct	625	1.5	.9	.03	2	200	238	59.5	1:1	2:1	102.06
R-20300	3000ct	3000ct	750	1.5	.9	.03	1.8	240	285	71.3	1:1	2:1	102.06
R-20305	*3000ct	3000ct	-	1.5	.9	.03	1.8	240	285	-	1:1	-	108.56
R-20310	3600ct	3600ct	900	1.5	.9	.03	1.7	288	342	86	1:1	2:1	102.06
R-20312	4000ct	16ct	4	1.5	.9	.03	1.6	320	1.52	.38	15.8:1	31.6:1	102.06
R-20314**	4000ct	600ct	150	1.5	.9	.03	1.6	320	57	14.3	2.58:1	5.16:1	102.06
R-20315	4000ct	1000ct	250	1.5	.9	.03	1.6	320	95	23.8	2:1	4:1	102.06
R-20320	*4000ct	8000ct	-	1.5	.9	.03	1.6	320	760	-	1:1.41	-	108.56
R-20325	5000ct	500ct	125	1.5	.9	.03	1.4	400	47.5	11.88	3.16:1	6.32:1	102.06
R-20330	5000ct	5000ct	1250	1.5	.9	.03	1.4	400	475	119	1:1	2:1	102.06
R-20335	7500ct	50ct	12.5	1.3	.9	.03	1.2	600	4.75	1.19	12.25:1	24.5:1	116.11
R-20340	7500ct	100ct	25	1.3	.9	.03	1.2	600	9.5	2.38	8.66:1	17.32:1	116.11
R-20345	7500ct	600ct	150	1.3	.9	.03	1.2	600	57	14.3	3.54:1	7.07:1	116.11
R-20350	7500ct	2500ct	625	1.3	.9	.03	1.2	600	238	59.5	1.73:1	3.46:1	116.11
R-20355	*7500ct	7500ct	-	1.3	.9	.03	1.2	600	713	-	1:1	-	123.61
R-20360	8000ct	12.8ct	3.2	1.2	.9	.03	1.1	640	1.22	.3	25:1	50:1	116.11
R-20365	8000ct	1000ct	250	1.2	.9	.03	1.1	640	95	23.8	2.83:1	5.66:1	116.11
R-20370	*8000ct	1200ct	-	1.2	.9	.03	1.1	640	114	-	2.58:1	-	123.61
R-20375	*9000ct	9000ct	-	1.1	.9	.03	1.1	720	855	-	1:1	-	123.61
R-20380	10,000ct	12.8ct	3.2	1.0	.9	.03	1	800	1.22	.3	28:1	56:1	116.11
R-20385	10,000ct	16ct	4	1.0	.9	.03	1	800	1.52	.38	25:1	50:1	116.11
R-20390	10,000ct	100ct	25	1.0	.9	.03	1	800	9.5	2.38	10:1	20:1	116.11
R-20395	10,000ct	200ct	50	1.0	.9	.03	1	800	19	4.75	7.07:1	14.14:1	116.11
R-20400	10,000ct	500ct	125	1.0	.9	.03	1	800	47.5	11.88	4.47:1	8.94:1	116.11
R-20405	10,000ct	600ct	150	1.0	.9	.03	1	800	57	14.25	4.08:1	8.16:1	116.11
R-20410	10,000ct	1000ct	250	1.0	.9	.03	1	800	95	23.8	3.16:1	6.32:1	116.11
R-20415	10,000ct	1200ct	300	1.0	.9	.03	1	800	114	28.5	2.89:1	5.77:1	116.11
R-20420	10,000ct	1500ct	375	1.0	.9	.03	1	800	143	35.8	2.58:1	5.16:1	116.11
R-20425	10,000ct	2000ct	500	1.0	.9	.03	1	800	190	47.5	2.24:1	4.47:1	116.11
R-20430	10,000ct	5000ct	1250	1.0	.9	.03	1	800	475	119	1.41:1	2.83:1	116.11
R-20435	10,000ct	7500ct	1875	1.0	.9	.03	1	800	713	178	1.16:1	2.31:1	116.11
R-20440	10,000ct	10,000ct	2500	1.0	.9	.03	1	800	950	238	1:1	2:1	116.11
R-20445	*10,000ct	10,000ct	-	1.0	.9	.03	1	800	950	-	1:1	-	123.87
R-20450	15,000ct	400ct	100	.66	.66	.03	.8	1200	38	9.5	6.12:1	12.25:1	116.11
R-20452	15,000ct	500ct	125	.66	.66	.03	.8	1200	48	12	5.48:1	10.95:1	116.11
R-20455	15,000ct	600ct	150	.66	.66	.03	.8	1200	57	14.3	5:1	10:1	116.11
R-20460	15,000ct	10,000ct	2500	.66	.66	.03	.8	1200	950	238	1.22:1	2.45:1	116.11
R-20465	*15,000ct	15,000ct	-	.66	.66	.03	.8	1200	1430	-	1:1	-	123.87

Ultra Miniature Transformers: R Series

Pico Part Number	Prim. Imped. Ohms	Sec. Imped. Ohms Split Windings		Power Watts			Prim. Unbal. DC Curr. ma	Prim. DC Resist. Ohms	Sec. DC Resist. Ohms		Turns Ratio Prim/Sec.		Prices 1-9 *** (US \$)
		SER	PAR	1 KHz and higher	300 Hz and higher	75 Hz and higher			Ser Conn	Par Conn	Sec Ser Conn	Sec Par Conn	
R-20470	15,000ct	15,000ct	3750	.66	.66	.03	.8	1200	1430	357	1:1	2:1	116.11
R-20475	16,000ct	1000ct	250	.62	.62	.03	.8	1280	95	23.8	4:1	8:1	116.11
R-20480	20,000ct	500ct	125	.5	.5	.03	.7	1600	47.5	11.88	6.32:1	12.65:1	123.80
R-20485	20,000ct	600ct	150	.5	.5	.03	.7	1600	57	14.25	5.77:1	11.55:1	123.80
R-20490	20,000ct	800ct	200	.5	.5	.03	.7	1600	76	19	5:1	10:1	123.80
R-20495	20,000ct	1000ct	250	.5	.5	.03	.7	1600	95	23.8	4.47:1	8.94:1	123.80
R-20500	20,000ct	5000ct	1250	.5	.5	.03	.7	1600	475	119	2:1	4:1	123.80
R-20505	20,000ct	10,000ct	2500	.5	.5	.03	.7	1600	950	238	1.41:1	2.83:1	123.80
R-20510	*20,000ct	20,000ct	-	.5	.5	.03	.7	1600	1900	-	1:1	-	128.70
R-20515	25,000ct	500ct	125	.4	.4	.03	.6	2000	47.5	11.88	7.07:1	14.14:1	123.80
R-20520	25,000ct	1000ct	250	.4	.4	.03	.6	2000	95	23.8	5:1	10:1	123.80
R-20525	30,000ct	50ct	12.5	.33	.33	.03	.6	2400	4.75	1.19	24.5:1	49:1	128.70
R-20530	30,000ct	1200ct	300	.33	.33	.03	.6	2400	114	28.5	5:1	10:1	128.70
R-20532	30,000ct	500ct	125	.33	.33	.03	.6	2400	47.5	11.88	7.7:1	15.5:1	128.70
R-20534	30,000ct	200ct	50	.33	.33	.03	.6	2400	19	4.75	12.2:1	24.5:1	128.70
R-20535	30,000ct	5000ct	1250	.33	.33	.03	.6	2400	475	119	2.45:1	4.9:1	128.70
R-20540	30,000ct	10,000ct	2500	.33	.33	.03	.6	2400	950	238	1.73:1	3.46:1	128.70
R-20545	*30,000ct	30,000ct	-	.33	.33	.03	.6	2400	2850	-	1:1	-	138.65
R-20550	40,000ct	400ct	100	.25	.25	.03	.5	3200	38	9.5	10:1	20:1	138.65
R-20555	40,000ct	2000ct	500	.25	.25	.03	.5	3200	190	47.5	4.47:1	8.94:1	138.65
R-20560	40,000ct	4000ct	1000	.25	.25	.03	.5	3200	380	95	3.16:1	6.32:1	138.65
R-20565	40,000ct	20,000ct	5000	.25	.25	.03	.5	3200	1900	475	1.41:1	2.83:1	138.65
R-20570	*40,000ct	40,000ct	-	.25	.25	.03	.5	3200	3800	-	1:1	-	153.93
R-20575	50,000ct	200ct	50	.2	.2	.03	.4	4000	19	4.75	15.8:1	31.6:1	153.93
R-20577	50,000ct	500ct	125	.2	.2	.03	.4	4000	47.5	11.88	10:1	20:1	153.93
R-20578	50,000ct	600ct	150	.2	.2	.03	.4	4000	57	14.3	9.13:1	18.26:1	153.93
R-20579	50,000ct	50,000ct	12,500	.2	.2	.03	.4	4000	4750	1190	1:1	2:1	153.93
R-20580	60,000ct	15,000ct	3750	.16	.16	.03	.4	4800	1430	358	2:1	4:1	166.26
R-20585	62,500ct	50ct	12.5	.16	.16	.03	.4	5000	4.75	1.19	35.4:1	70.7:1	166.26
R-20587	80,000ct	15,000ct	3750	.12	.12	.03	.3	6400	1430	358	2.3:1	4.6:1	166.26

R-20590	90,000ct	10,000ct	2500	.11	.11	.03	.3	7200	950	238	3:1	6:1	166.26
R-20595	95,000ct	15,000ct	3750	.1	.1	.03	.3	7600	1430	358	2.5:1	5:1	174.52
R-20600	100,000ct	60ct	15	.1	.1	.03	.3	8000	5.7	1.43	40.8:1	81.6:1	174.52
R-20605	100,000ct	100ct	25	.1	.1	.03	.3	8000	9.5	2.38	31.6:1	63.2:1	174.52
R-20610	100,000ct	500ct	125	.1	.1	.03	.3	8000	47.5	11.88	14.1:1	28.3:1	174.52
R-20613	100,000ct	1000ct	250	.1	.1	.03	.3	8000	95	23.8	10:1	20:1	174.52
R-20614	100,000ct	2000ct	500	.1	.1	.03	.3	8000	190	47.5	7.07:1	14.14:1	174.52
R-20615	100,000ct	10,000ct	2500	.1	.1	.03	.3	8000	950	238	3.16:1	6.32:1	174.52
R-20620	135,000ct	82ct	20.5	.07	.07	.03	.2	10,800	7.8	1.9	40.6:1	81.2:1	182.33

*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%

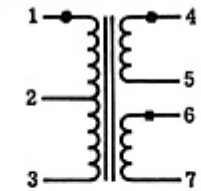
Ordering Instructions:

- No minimum.
- Net 30 days F.O.B. Pelham, NY
- **Delivery - stock to one week for sample orders.**

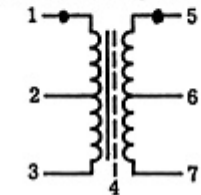
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- Extreme resistance to thermal shock
- Ultra miniature size
- PICO is approved QPL Source (Mil-PRF-27)
- Magnetic Shields available
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- Variation of standard designs available
- Primary and secondary windings can be used either as input or output.
- Special production techniques ensure uniform size and leads which are free of encapsulant. No meniscus in lead area.
- Every unit can be made with a 300 thermal cycle guarantee using PICO's special SR construction. Contact factory for details.

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