

F & G · 70000 & 80000 Series

2-20kΩ, 400-250kHz, 100mW Max. @ 1kHz+ Audio Transformer

PICO
Electronics, Inc.

PRODUCT OVERVIEW

The F & G and 70000 & 80000 series are ultra-miniature transformers in an encapsulated package with design layouts as through-hole with insulated leads option, or surface mount types. They can operate over a wide temperature range of -55°C to +130°C. Our proprietary materials and methods allow extreme temperatures of vapor phase, IR or other reflow procedures without degrading the high reliability of their physical form and electrical performance.

Typical applications:

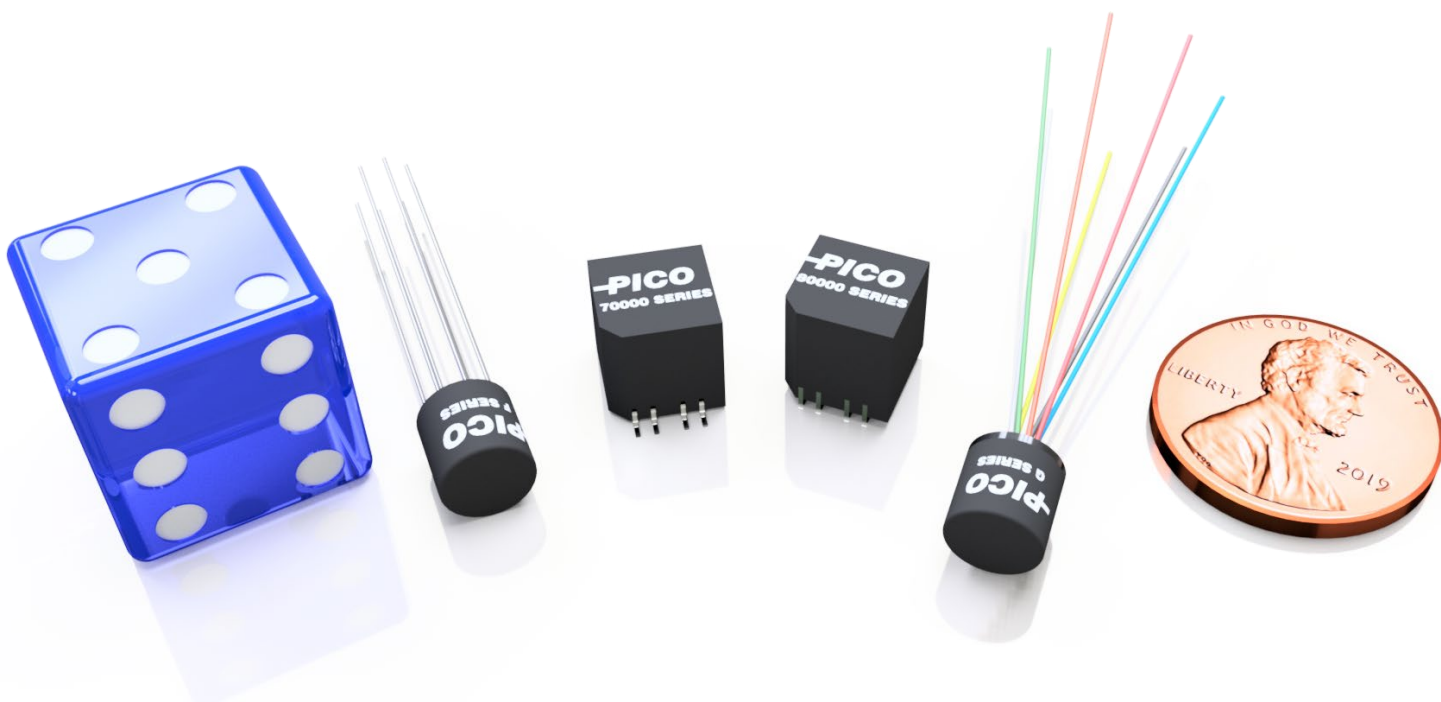
- Sensors
- Radars
- Avionic flight controls
- Airborne systems
- Naval electronics
- Military, aerospace, or commercial aircraft

FEATURES

- Extreme resistance to impact, shock, and vibration
- Manufactured to MIL-PRF-27, Class S, Grade 5
- High reliability for space and mission critical applications
- Ultra miniature in size and minimalistic design
- Design layouts in through-hole with insulated leads option or surface mount types
- Available with magnetic shielding and/or electrostatic shielding

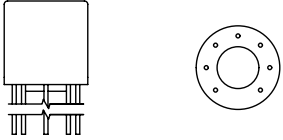
Contact Pico for part number of available options:

- Screening and qualification criteria to flight standard
- Capability to thermal shock up to 300 cycles
- Extra layers of magnetic shielding
- Fully RoHS compliant or with exemption 7(a)
- Modifications to mechanical design and electrical characteristics
- Custom new design and parameters

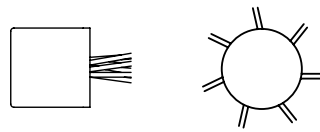


SPECIFICATIONS

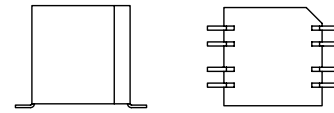
**F SERIES
(STRAIGHT LEADS)**



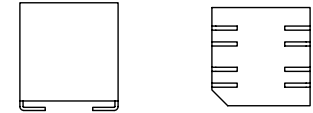
**G SERIES
(INSULATED LEADS)**



**70000 SERIES
(GULL WING LEADS SURFACE MOUNT)**



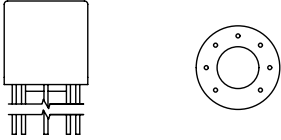
**80000 SERIES
(J LEADS SURFACE MOUNT)**



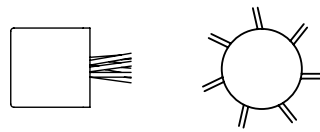
Through Hole		Surface Mount		Primary Impedance [Ω]	Secondary Impedance with Split Windings		Power		Primary Unbalanced DC Current [mA]	Primary DCR [Ω]	Secondary DCR		Turns Ratio PRI:SEC	
Straight	Insulated	Gull Wing Leads	J Leads		Series [Ω]	Parallel [Ω]	1kHz+ [W]	400Hz+ [W]			Series [Ω]	Parallel [Ω]	Series	Parallel
F-28003	G-29003	70003	80003	10 CT	10 CT	2.5	125	20	11.5	1.1	1.35	.34	1:1	2:1
F-28005	G-29005	70005	80005	20 CT	8 CT	2	125	20	8	2.1	1.28	.32	1.58:1	3.16:1
F-28010	G-29010	70010	80010	20 CT	20 CT	5	125	20	8	2.1	2.56	.64	1:1	2:1
F-28015	G-29015	70015	80015	32 CT	32 CT	8	125	20	6.5	3.52	4.32	1.08	1:1	2:1
F-28020	G-29020	70020	80020	40 CT	40 CT	10	125	20	5.6	4	4.77	1.19	1:1	2:1
F-28025	G-29025	70025	80025	48 CT	16 CT	4	125	20	5.2	4.3	2.3	.58	1.73:1	3.46:1
F-28030	G-29030	70030	80030	50 CT	50 CT	12.5	125	20	5	5.5	6.6	1.65	1:1	2:1
F-28035	G-29035	70035	80035	80 CT	32 CT	8	125	20	4	8.5	4.25	1.06	1.58:1	3.16:1
F-28040	G-29040	70040	80040	100 CT	40 CT	10	125	20	3.6	12.1	4.85	1.21	1.58:1	3.16:1
F-28045	G-29045	70045	80045	100 CT	100 CT	25	125	20	3.6	12.1	12	3	1:1	2:1
F-28050	G-29050	70050	80050	120 CT	12.8 CT	3.2	125	20	3.3	13.2	1.6	.4	3.06:1	6.12:1
F-28055	G-29055	70055	80055	120 CT	60 CT	15	125	20	3.3	13.2	7.3	1.83	1.41:1	2.83:1
F-28060	G-29060	70060	80060	120 CT	120 CT	30	125	20	3.3	13.2	16	4	1:1	2:1
F-28065	G-29065	70065	80065	150 CT	12 CT	3	125	20	3	15	1.56	.39	3.54:1	7.07:1
F-28070	G-29070	70070	80070	150 CT	50 CT	12.5	125	20	3	15	6.6	1.65	1.73:1	3.46:1
F-28075	G-29075	70075	80075	150 CT	100 CT	25	125	20	3	15	14.5	3.63	1.22:1	2.45:1
F-28080	G-29080	70080	80080	150 CT	150 CT	37.5	125	20	3	15	18.3	4.58	1:1	2:1
F-28085	G-29085	70085	80085	150 CT	600 CT	150	125	20	3	15	72	18	1:2	1:1
F-28090	G-29090	70090	80090	200 CT	200 CT	50	125	20	2.5	22	26.8	6.7	1:1	2:1
F-28095	G-29095	70095	80095	300 CT	12 CT	3	125	20	2	33	1.56	.39	5:1	10:1
F-28100	G-29100	70100	80100	300 CT	50 CT	12.5	125	20	2	33	6.6	1.65	2.45:1	4.9:1
F-28105	G-29105	70105	80105	300 CT	150 CT	37.5	125	20	2	33	18.3	4.58	1.41:1	2.83:1
F-28110	G-29110	70110	80110	300 CT	300 CT	75	125	20	2	33	40.3	10.08	1:1	2:1
F-28115	G-29115	70115	80115	300 CT	600 CT	150	125	20	2	33	72	18	1:1.41	1.41:1

SPECIFICATIONS

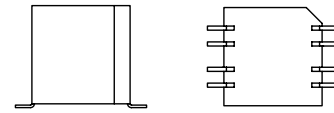
**F SERIES
(STRAIGHT LEADS)**



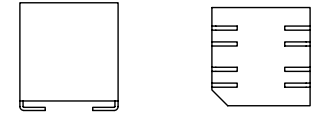
**G SERIES
(INSULATED LEADS)**



**70000 SERIES
(GULL WING LEADS SURFACE MOUNT)**



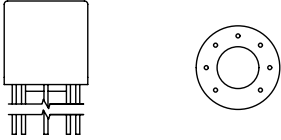
**80000 SERIES
(J LEADS SURFACE MOUNT)**



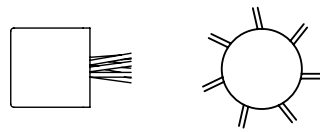
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Straight	Insulated	Gull Wing Leads	J Leads		Series [Ω]	Parallel [Ω]	1kHz+ [W]	400Hz+ [W]			Series [Ω]	Parallel [Ω]	Series	Parallel
F-28120	G-29120	70120	80120	320 CT	12.8 CT	3.2	125	20	2	34	1.6	0.4	5:1	10:1
F-28125	G-29125	70125	80125	400 CT	40 CT	10	125	20	1.8	49	4.7	1.18	3.16:1	6.32:1
F-28130	G-29130	70130	80130	400 CT	120 CT	30	125	20	1.8	49	16.3	4.08	1.83:1	3.65:1
F-28135	G-29135	70135	80135	400 CT	200 CT	50	125	20	1.8	49	27.3	6.83	1.41:1	2.83:1
F-28140	G-29140	70140	80140	400 CT	400 CT	100	125	20	1.8	49	49	12.25	1:1	2:1
F-28145	G-29145	70145	80145	400 CT	1000 CT	250	125	20	1.8	49	120	30	1:1.58	1.26:1
F-28150	G-29150	70150	80150	400 CT	2000 CT	500	125	20	1.8	49	270	67.5	1:2.24	1:1.12
F-28155	G-29155	70155	80155	400 CT	4000 CT	1000	125	20	1.8	49	476	119	1:3.16	1:1.58
F-28160	G-29160	70160	80160	500 CT	12.8 CT	3.2	125	20	1.6	54	1.6	0.4	6.25:1	12.5:1
F-28165	G-29165	70165	80165	500 CT	16 CT	4	125	20	1.6	54	2.3	0.58	5.6:1	11.2:1
F-28170	G-29170	70170	80170	500 CT	50 CT	12.5	125	20	1.6	54	6.6	1.65	3.16:1	6.32:1
F-28175	G-29175	70175	80175	500 CT	150 CT	37.5	125	20	1.6	54	18.3	4.58	1.83:1	3.65:1
F-28180	G-29180	70180	80180	500 CT	500 CT	125	125	20	1.6	54	65	16.3	1:1	2:1
(1) F-28185	G-29185	70185	80185	500 CT	500 CT	-	125	20	1.6	54	65	-	1:1	-
F-28190	G-29190	70190	80190	500 CT	600 CT	150	125	20	1.6	54	72	18	1:1.1	1.83:1
F-28195	G-29195	70195	80195	600 CT	12.8 CT	3.2	125	20	1.5	59	1.6	0.4	6.85:1	13.7:1
F-28200	G-29200	70200	80200	600 CT	30 CT	7.5	125	20	1.5	59	4.1	1.03	4.47:1	8.94:1
F-28205	G-29205	70205	80205	600 CT	48 CT	12	125	20	1.5	59	5.2	1.3	3.54:1	7.07:1
F-28210	G-29210	70210	80210	600 CT	200 CT	50	125	20	1.5	59	26.5	6.63	1.73:1	3.46:1
F-28215	G-29215	70215	80215	600 CT	600 CT	150	125	20	1.5	59	72	18	1:1	2:1
(1) F-28220	G-29220	70220	80220	600 CT	600 CT	-	125	20	1.5	59	72	-	1:1	-
F-28225	G-29225	70225	80225	600 CT	1200 CT	300	125	20	1.5	59	160	40	1:1.41	1.41:1
F-28230	G-29230	70230	80230	640 CT	12.8 CT	3.2	125	20	1.5	62	1.6	0.4	7.07:1	14.14:1
F-28235	G-29235	70235	80235	700 CT	100 CT	25	125	20	1.35	65	12	3	2.65:1	5.29:1

SPECIFICATIONS

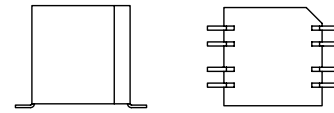
**F SERIES
(STRAIGHT LEADS)**



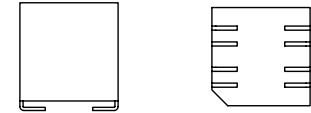
**G SERIES
(INSULATED LEADS)**



**70000 SERIES
(GULL WING LEADS SURFACE MOUNT)**



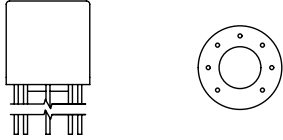
**80000 SERIES
(J LEADS SURFACE MOUNT)**



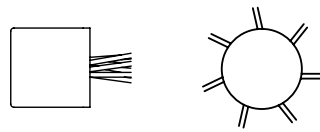
	Through Hole		Surface Mount		Primary Impedance [Ω]	Secondary Impedance with Split Windings		Power		Primary Unbalanced DC Current [mA]	Primary DCR [Ω]	Secondary DCR		Turns Ratio PRI:SEC	
	Straight	Insulated	Gull Wing Leads	J Leads		Series [Ω]	Parallel [Ω]	1kHz+ [W]	400Hz+ [W]			Series [Ω]	Parallel [Ω]	Series	Parallel
	F-28240	G-29240	70240	80240	800 CT	12.8 CT	3.2	125	20	1.3	88	16	4	7.9:1	15.8:1
	F-28245	G-29245	70245	80245	800 CT	48 CT	12	125	20	1.3	88	6.7	1.68	4.08:1	8.16:1
	F-28250	G-29250	70250	80250	800 CT	800 CT	200	125	20	1.3	88	106	26.5	1:1	2:1
	F-28255	G-29255	70255	80255	900 CT	600 CT	150	125	20	1.2	93	74	18.5	1.22:1	2.45:1
	F-28260	G-29260	70260	80260	1000 CT	12 CT	3	125	20	1.2	120	1.55	0.39	9.13:1	18.3:1
	F-28265	G-29265	70265	80265	1000 CT	50 CT	12.5	125	20	1.2	120	6.6	1.65	4.47:1	8.94:1
	F-28270	G-29270	70270	80270	1000 CT	1000 CT	250	125	20	1.2	120	120	30	1:1	2:1
	F-28275	G-29275	70275	80275	1060 CT	12.8 CT	3.2	125	20	1.2	125	1.6	0.4	9.1:1	18.2:1
	F-28280	G-29280	70280	80280	1200 CT	12.8 CT	3.2	125	20	1	133	1.6	0.4	9.68:1	19.4:1
	F-28285	G-29285	70285	80285	1200 CT	500 CT	125	125	20	1	133	65	16.25	1.55:1	3.1:1
	F-28290	G-29290	70290	80290	1200 CT	1200 CT	300	125	20	1	133	160	40	1:1	2:1
(1)	F-28295	G-29295	70295	80295	1200 CT	1200 CT	-	125	20	1	133	160	-	1:1	-
	F-28300	G-29300	70300	80300	1500 CT	12 CT	3	125	20	1	180	1.55	0.39	11.2:1	22.4:1
	F-28305	G-29305	70305	80305	1500 CT	500 CT	125	125	20	1	180	65	16.31	1.73:1	3.46:1
(1)	F-28310	G-29310	70310	80310	1500 CT	600 CT	-	125	20	1	180	73	-	1.58:1	-
(1)	F-28315	G-29315	70315	80315	1500 CT	1500 CT	-	125	20	1	180	215	-	1:1	-
	F-28320	G-29320	70320	80320	1600 CT	12.8 CT	3.2	125	20	1	190	1.6	0.4	11.2:1	22.4:1
	F-28325	G-29325	70325	80325	2000 CT	8 CT	2	125	20	0.8	218	1	0.25	15.8:1	31.6:1
	F-28330	G-29330	70330	80330	2000 CT	2000 CT	500	125	20	0.8	218	260	65	1:1	2:1
(1)	F-28335	G-29335	70335	80335	2000 CT	2000 CT	-	125	20	0.8	218	260	-	1:1	-
	F-28340	G-29340	70340	80340	2000 CT	8000 CT	2000	125	20	0.8	218	830	207.5	1:2	1:1
	F-28345	G-29345	70345	80345	2500 CT	2500 CT	625	125	20	0.75	280	280	70	1:1	2:1
	F-28350	G-29350	70350	80350	3000 CT	3000 CT	725	125	20	0.65	330	330	82.5	1:1	2:1
(1)	F-28355	G-29355	70355	80355	3000 CT	3000 CT	-	125	20	0.65	330	330	-	1:1	-

SPECIFICATIONS

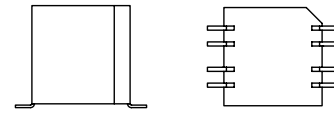
**F SERIES
(STRAIGHT LEADS)**



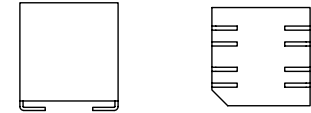
**G SERIES
(INSULATED LEADS)**



**70000 SERIES
(GULL WING LEADS SURFACE MOUNT)**



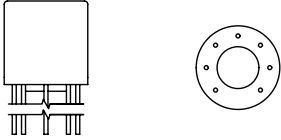
**80000 SERIES
(J LEADS SURFACE MOUNT)**



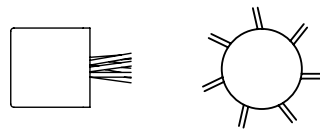
	Through Hole		Surface Mount		Primary Impedance [Ω]	Secondary Impedance with Split Windings		Power		Primary Unbalanced DC Current [mA]	Primary DCR [Ω]	Secondary DCR		Turns Ratio PRI:SEC	
	Straight	Insulated	Gull Wing Leads	J Leads		Series [Ω]	Parallel [Ω]	1kHz+ [W]	400Hz+ [W]			Series [Ω]	Parallel [Ω]	Series	Parallel
	F-28360	G-29360	70360	80360	3600 CT	3600 CT	900	125	20	0.6	370	450	112.5	1:1	2:1
	F-28365	G-29365	70365	80365	4000 CT	16 CT	4	125	20	0.57	400	2.3	0.58	15.8:1	31.6:1
	F-28370	G-29370	70370	80370	4000 CT	600 CT	150	125	20	0.57	400	73	18.25	2.58:1	5.16:1
	F-28375	G-29375	70375	80375	4000 CT	1000 CT	250	125	20	0.57	400	120	30	2:1	4:1
(1)	F-28380	G-29380	70380	80380	4000 CT	8000 CT	-	125	20	0.57	400	1070	-	1:1.41	-
	F-28385	G-29385	70385	80385	5000 CT	500 CT	125	125	20	0.5	540	65	16.25	3.16:1	6.32:1
	F-28390	G-29390	70390	80390	5000 CT	5000 CT	1250	125	20	0.5	540	650	162.5	1:1	2:1
	F-28395	G-29395	70395	80395	7500 CT	50 CT	12.5	125	20	0.5	835	6.6	1.65	12.2:1	24.5:1
	F-28400	G-29400	70400	80400	7500 CT	100 CT	25	125	20	0.4	835	12	3	8.66:1	17.3:1
	F-28405	G-29405	70405	80405	7500 CT	600 CT	150	125	20	0.4	835	72	18	3.54:1	7.07:1
	F-28410	G-29410	70410	80410	7500 CT	2500 CT	625	125	20	0.4	835	280	70	1.73:1	3.46:1
(1)	F-28415	G-29415	70415	80415	7500 CT	7500 CT	-	125	20	0.4	835	1020	-	1:1	-
	F-28420	G-29420	70420	80420	8000 CT	12.8 CT	3.2	125	20	0.4	865	1.6	0.4	25:1	50:1
	F-28425	G-29425	70425	80425	8000 CT	1000 CT	250	125	20	0.4	865	120	30	2.83:1	5.66:1
(1)	F-28430	G-29430	70430	80430	8000 CT	1200 CT	-	125	20	0.4	865	160	-	2.58:1	-
(1)	F-28435	G-29435	70435	80435	9000 CT	9000 CT	-	125	20	0.4	1160	1160	-	1:1	-
	F-28440	G-29440	70440	80440	10,000 CT	12.8 CT	3.2	125	20	0.36	1200	1.6	0.4	28:1	56:1
	F-28445	G-29445	70445	80445	10,000 CT	16 CT	4	125	20	0.36	1200	1.77	0.44	25:1	50:1
	F-28450	G-29450	70450	80450	10,000 CT	100 CT	25	125	20	0.36	1200	12	3	10:1	20:1
	F-28455	G-29455	70455	80455	10,000 CT	200 CT	50	125	20	0.36	1200	27	6.75	7.07:1	14.14:1
	F-28460	G-29460	70460	80460	10,000 CT	500 CT	125	125	20	0.36	1200	65	16.25	4.47:1	8.94:1
	F-28465	G-29465	70465	80465	10,000 CT	600 CT	150	125	20	0.36	1200	72	18	4.08:1	8.16:1
	F-28470	G-29470	70470	80470	10,000 CT	1000 CT	250	125	20	0.36	1200	120	30	3.16:1	6.32:1
	F-28475	G-29475	70475	80475	10,000 CT	1200 CT	300	125	20	0.36	1200	160	40	2.88:1	5.77:1

SPECIFICATIONS

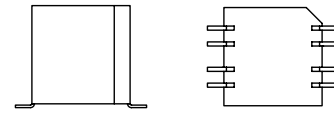
F SERIES (STRAIGHT LEADS)



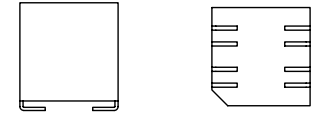
G SERIES (INSULATED LEADS)



70000 SERIES (GULL WING LEADS SURFACE MOUNT)



80000 SERIES (J LEADS SURFACE MOUNT)



	Through Hole		Surface Mount		Primary Impedance [Ω]	Secondary Impedance with Split Windings		Power		Primary Unbalanced DC Current [mA]	Primary DCR [Ω]	Secondary DCR		Turns Ratio PRI:SEC	
	Straight	Insulated	Gull Wing Leads	J Leads		Series [Ω]	Parallel [Ω]	1kHz+ [W]	400Hz+ [W]			Series [Ω]	Parallel [Ω]	Series	Parallel
	F-28480	G-29480	70480	80480	10,000 CT	1500 CT	375	125	20	0.36	1200	215	53.8	2.58:1	5.16:1
	F-28485	G-29485	70485	80485	10,000 CT	2000 CT	500	125	20	0.36	1200	260	65	2.24:1	4.47:1
	F-28490	G-29490	70490	80490	10,000 CT	5000 CT	1250	125	20	0.36	1200	650	162.5	1.41:1	2.83:1
	F-28495	G-29495	70495	80495	10,000 CT	7500 CT	1875	125	20	0.36	1200	1020	255	1.15:1	2.3:1
	F-28500	G-29500	70500	80500	10,000 CT	10,000 CT	2500	125	20	0.36	1200	1200	300	1:1	2:1
(1)	F-28505	G-29505	70505	80505	10,000 CT	10,000 CT	-	125	20	0.36	1200	1440	-	1:1	-
	F-28510	G-29510	70510	80510	15,000 CT	400 CT	100	100	15	0.35	1420	43	10.75	6.12:1	12.24:1
	F-28515	G-29515	70515	80515	15,000 CT	500 CT	125	100	15	0.35	1420	49	12.25	5.48:1	10.95:1
	F-28520	G-29520	70520	80520	15,000 CT	600 CT	150	100	15	0.35	1420	68	17	5:1	10:1
	F-28525	G-29525	70525	80525	15,000 CT	10,000 CT	2500	100	15	0.35	1420	1100	275	1.22:1	2.45:1
(1)	F-28530	G-29530	70530	80530	15,000 CT	15,000 CT	-	100	15	0.35	1420	1730	-	1:1	-
	F-28535	G-29535	70535	80535	15,000 CT	15,000 CT	3750	100	15	0.35	1420	1730	433	1:1	2:1
	F-28540	G-29540	70540	80540	16,000 CT	1000 CT	250	100	15	0.35	1500	115	28.75	4:1	8:1
	F-28545	G-29545	70545	80545	20,000 CT	500 CT	125	100	15	0.3	1600	60	15	6.33:1	12.65:1
	F-28550	G-29550	70550	80550	20,000 CT	600 CT	150	100	15	0.3	1600	66	16.5	5.77:1	11.55:1
	F-28555	G-29555	70555	80555	20,000 CT	800 CT	200	100	15	0.3	1600	94	23.5	5:1	10:1
	F-28560	G-29560	70560	80560	20,000 CT	1000 CT	250	100	15	0.3	1600	106	26.5	4.47:1	8.94:1
	F-28565	G-29565	70565	80565	20,000 CT	5000 CT	1250	100	15	0.3	1600	600	150	2:1	4:1
	F-28570	G-29570	70570	80570	20,000 CT	10,000 CT	2500	100	15	0.3	1600	1100	275	1.41:1	2.83:1

Note 1: Includes electrostatic shield

SPECIFICATIONS

GENERAL

Parameter	Condition	Min.	Typ.	Max.	Units
Dielectric Strength	60Hz	-	200	-	V _{RMS}
Insulation Resistance	300VDC	10	-	-	GΩ
Distortion	400Hz & 1kHz @ Rated Power	-	-	5	%
Frequency Response	400 - 250kHz @ 1mW	-3	-	3	dB
Size	F & G Series - Diameter x Height	0.25 x 0.25 (6.35 x 6.35)			inches (mm)
	70000 Series - Length x Width x Height	0.31 x 0.31 x 0.322 (7.874 x 7.874 x 8.179)			
	80000 Series - Length x Width x Height	0.31 x 0.31 x 0.34 (7.874 x 7.874 x 8.636)			
Operating Temperature Range	Ambient with temperature rise	-55	-	+130	°C
Storage Temperature Range	Ambient	-55	-	+105	°C
Weight	F, G, 70000, & 80000 Series	-	1.5	-	grams
Case	F & G Series	Epoxy Insulated Metal			
	70000 & 80000 Series	Glass Reinforced Polymer			
Potting	Vacuum Impregnated Epoxy				
Box Packaging (W x H x L)	F & G Series	10.6 x 2.28 x 0.39 (269.24 x 57.91 x 9.91)			inches (mm)
Tube Packaging (W x H x L)	70000 Series	0.68 x 0.49 x 20 (17.374 x 12.446 x 508)			inches (mm)
	80000 Series	0.42 x 0.49 x 12 (10.673 x 12.446 x 304.8)			
Tape & Reel Packaging	Upon request				
Moisture Sensitivity Level	Surface Mount only	Level 3			

OPTIONAL DESIGN CRITERIA

Test	Standard	Description
Vibration	MIL-STD-202	Method 204, Vibration, High Frequency
Shock	MIL-STD-202	Method 213, Shock (Specified Pulse)
Immersion	MIL-STD-202	Method 104, Immersion
Moisture Resistance	MIL-STD-202	Method 106, Moisture Resistance
Flammability	MIL-STD-202	Method 111, Flammability (External Flame)
Thermal Shock	MIL-STD-202	Method 107, Thermal Shock

OPTIONAL SCREENING AND QUALIFICATION

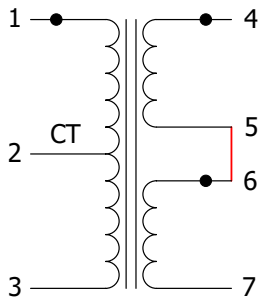
Standard	Screening & Qualification	Test ⁽²⁾
MIL-PRF-27	a.) Group A inspection Level-T - Table VII b.) Qualification inspection, Grade 5 - Table V	I. Thermal Shock II. Vibration III. Burn-in IV. Induced Voltage V. Shock VI. Dielectric Withstanding Voltage (at reduced pressure) VII. Insulation Resistance VIII. Electrical Characteristics IX. Visual and Mechanical Examination (External) X. Life XI. Radiographic Inspection
MIL-STD-981	a.) Group A screening tests - Table VI b.) Group B tests - Table XII, Class S	
EEE-INST-002, Section M1	a.) Magnetics Screening Req. - Table 2 b.) Magnetics Part Qual. - Table 3	

Note 2: Screening and qualification tests are not limited to the options in the chart above. Each standard may also be stringent or exclude certain tests from one another. Please contact Pico for specific application needs and for Pico part number.

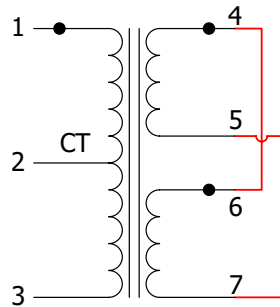
ELECTRICAL SCHEMATIC

F SERIES - THROUGH HOLE

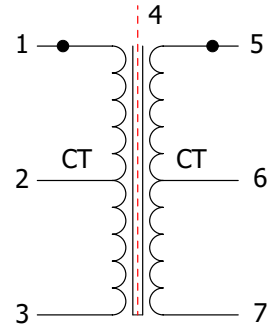
**SPLIT SECONDARIES
SERIES CONNECTION**



**SPLIT SECONDARIES
PARALLEL CONNECTION**

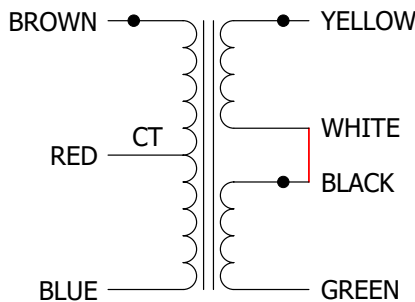


ELECTROSTATIC SHIELD

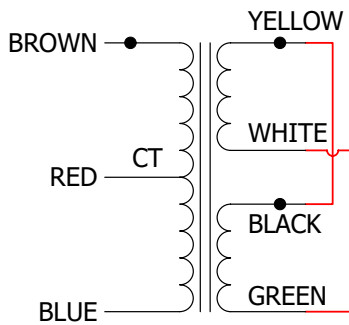


G SERIES - INSULATED LEADS

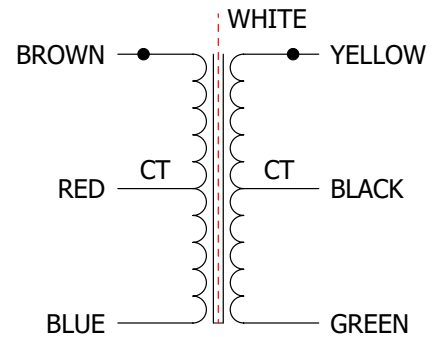
**SPLIT SECONDARIES
SERIES CONNECTION**



**SPLIT SECONDARIES
PARALLEL CONNECTION**

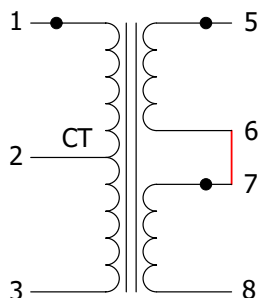


ELECTROSTATIC SHIELD

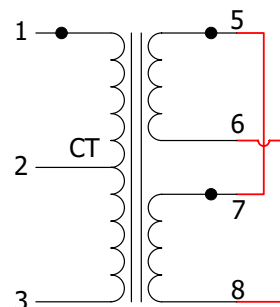


70000 & 80000 SERIES - SURFACE MOUNT

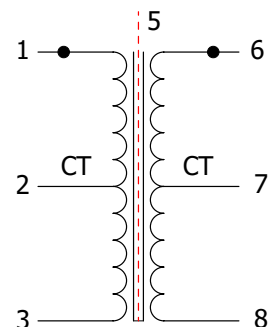
**SPLIT SECONDARIES
SERIES CONNECTION**



**SPLIT SECONDARIES
PARALLEL CONNECTION**



ELECTROSTATIC SHIELD

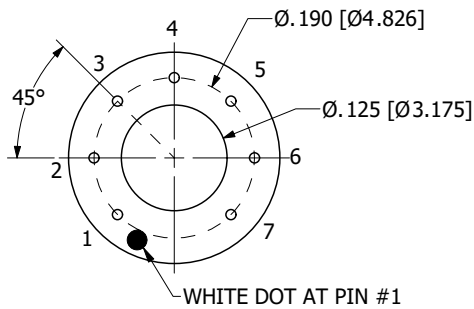
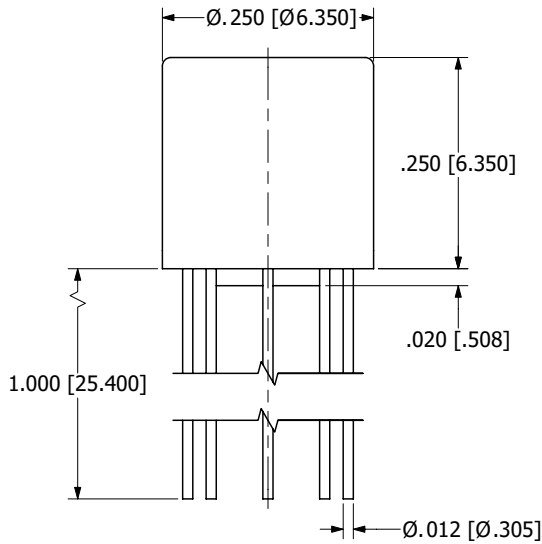


NOTES

- a. ANY TERMINALS NOT SHOWN HERE MAY BE USED FOR MECHANICAL STABILITY ON THE PCB ONLY, AS THEY DO NOT HAVE ANY ELECTRICAL CONNECTION.
- b. CT STANDS FOR "CENTER-TAP", WHERE THE TOTAL NUMBER OF TURNS IS EVENLY SPLIT BETWEEN THE TOP HALF AND BOTTOM HALF OF A COMPLETE WINDING.

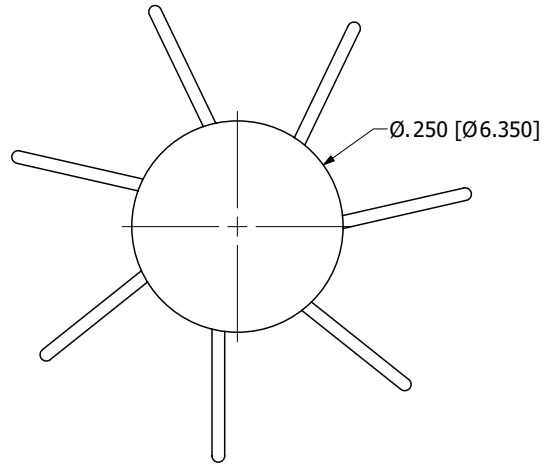
MECHANICAL DRAWINGS

SERIES F - THROUGH HOLE

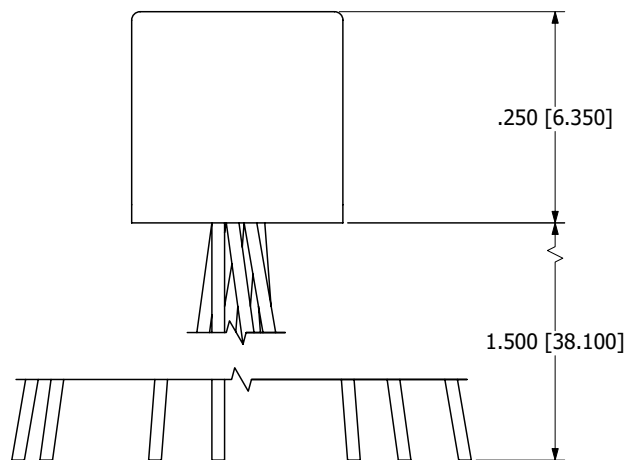


BOTTOM VIEW

SERIES G - INSULATED LEADS

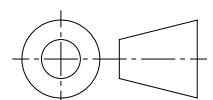


TOP VIEW



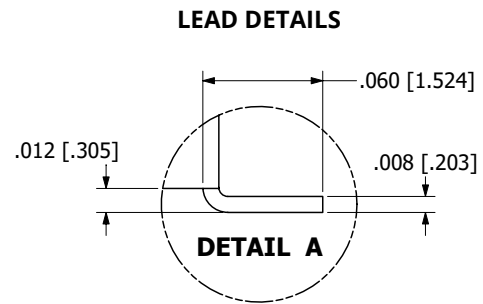
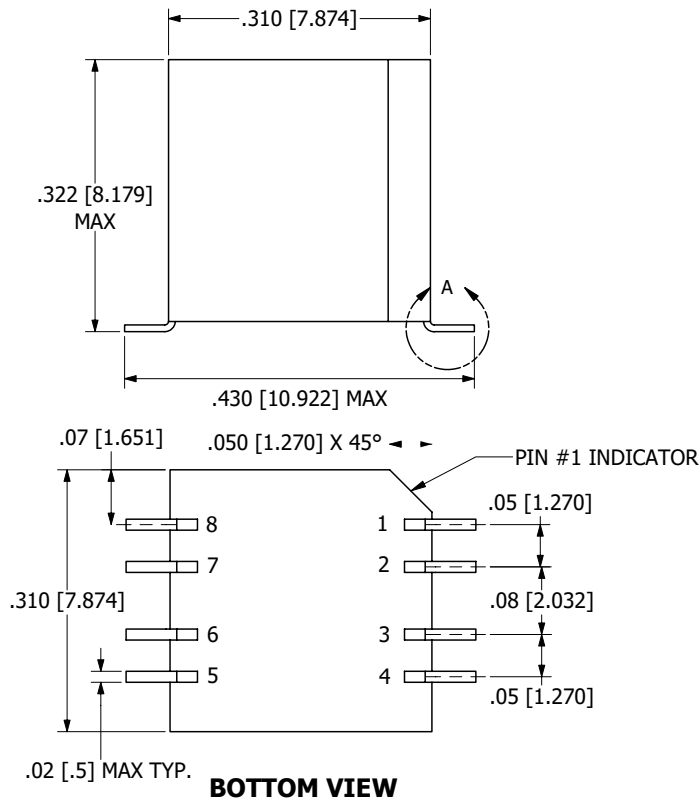
NOTES

- a. ALL DIMENSIONS ARE IN INCHES, [] = MM
- b. TERMINALS ARE CLOCKWISE FROM PIN #1



MECHANICAL DRAWINGS

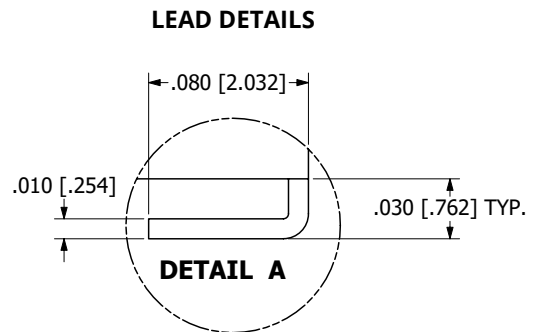
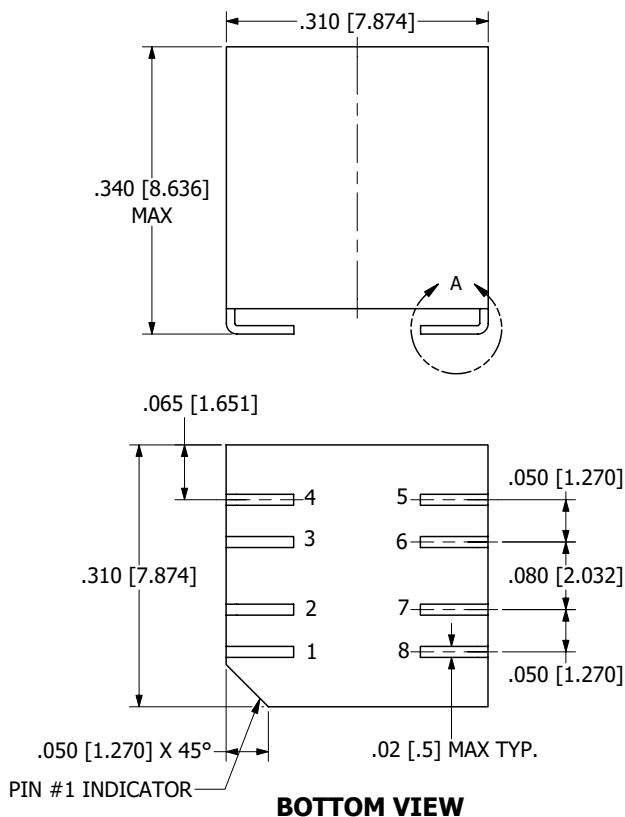
70000 SERIES - GULL WING LEADS SURFACE MOUNT



NOTES

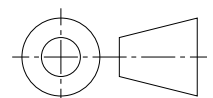
- a. ALL DIMENSIONS ARE IN INCHES, [] = MM
- b. TERMINALS ARE CLOCKWISE FROM PIN #1
- c. PIN #4 HAS NO CONNECTION

80000 SERIES - J LEADS SURFACE MOUNT



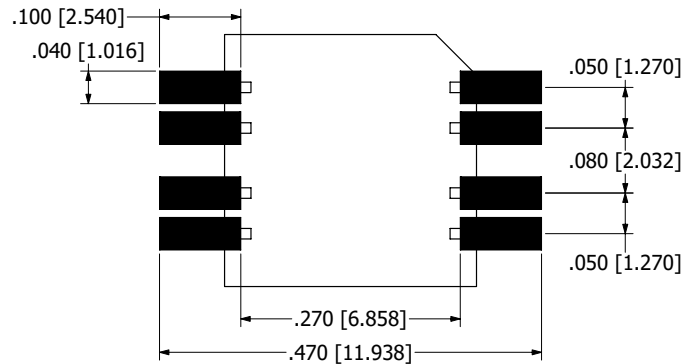
NOTES

- a. ALL DIMENSIONS ARE IN INCHES, [] = MM
- b. TERMINALS ARE CLOCKWISE FROM PIN #1
- c. PIN #4 HAS NO CONNECTION



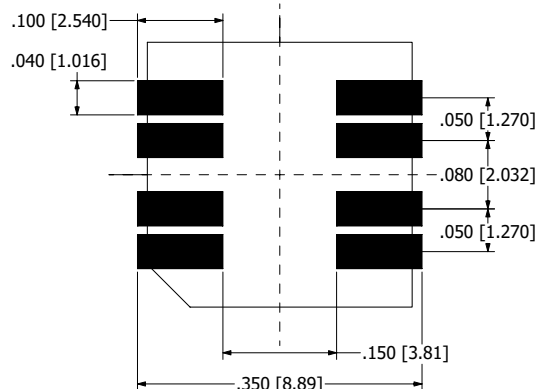
RECOMMENDED LAND PATTERN DIMENSIONS

70000 SERIES - GULL WING LEADS SURFACE MOUNT



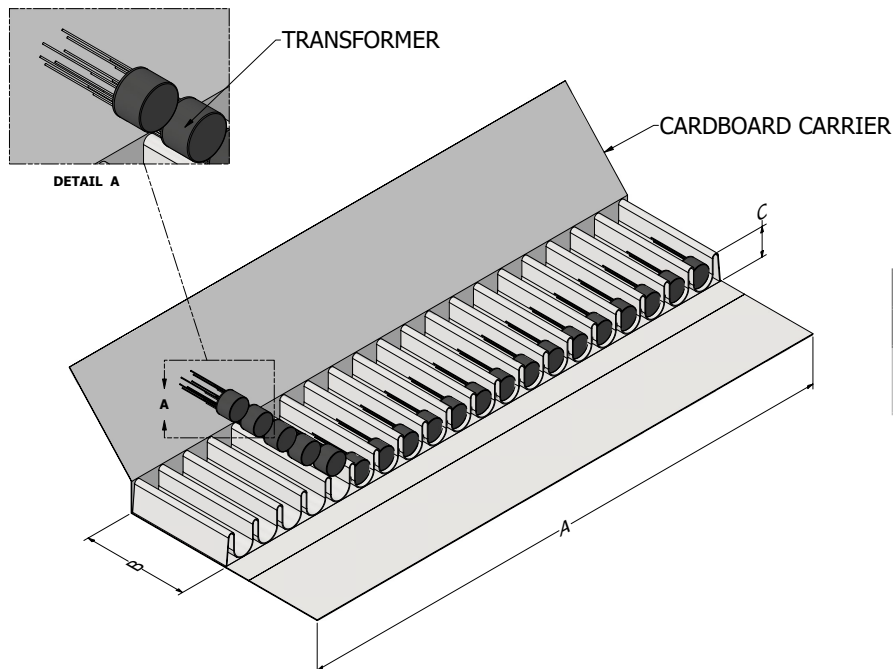
BOTTOM VIEW

80000 SERIES - J LEADS SURFACE MOUNT

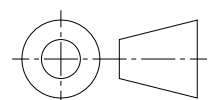


BOTTOM VIEW

BOX PACKAGING - F & G SERIES

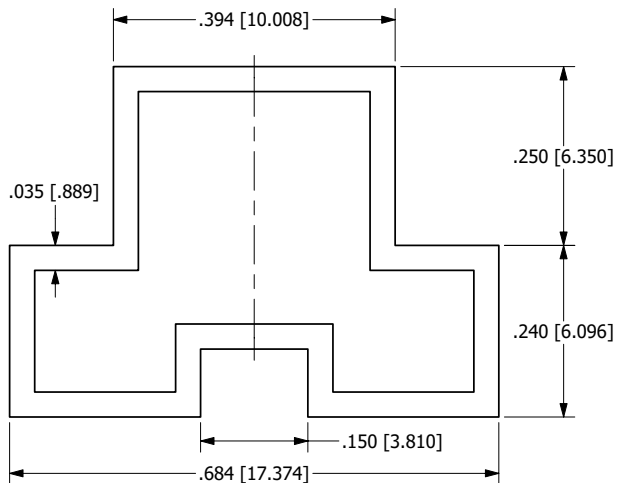


Dimension		
A	B	C
10.60	2.28	0.39
[269.24]	[57.91]	[9.91]

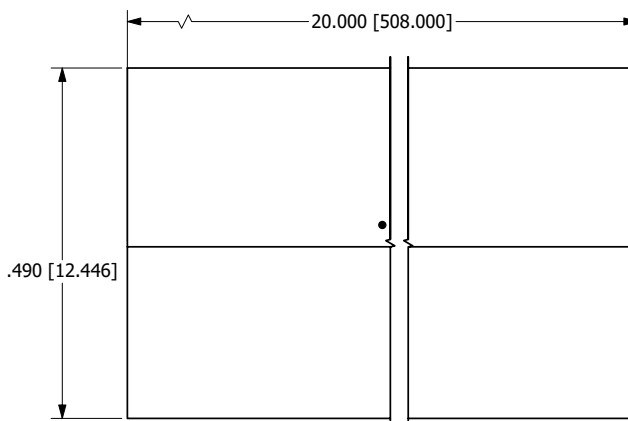


TUBE PACKAGING - 70000 & 80000 SERIES

70000 SERIES

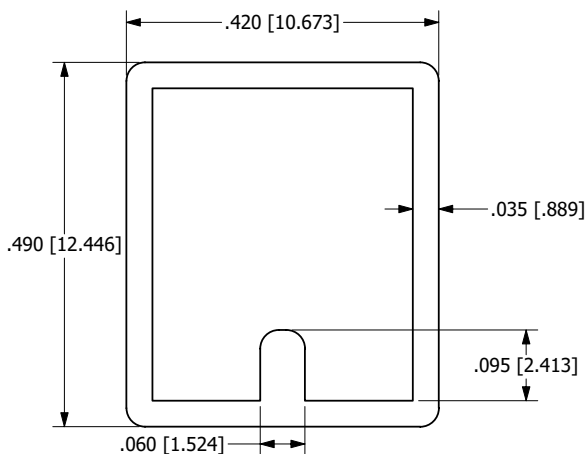


PLAN VIEW

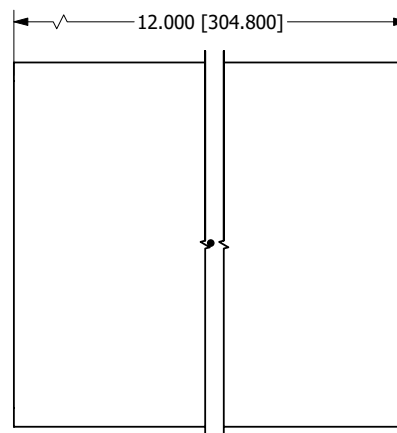


ELEVATION VIEW

80000 SERIES

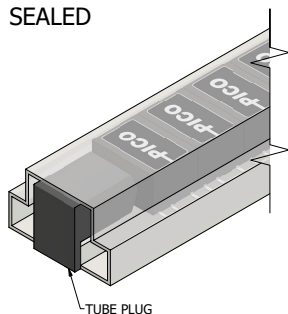


PLAN VIEW

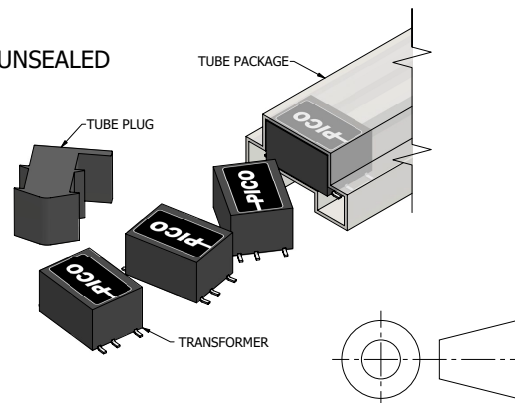


ELEVATION VIEW

SEALED



UNSEALED



Pico warrants each product manufactured by us and sold by us or an authorized representative, to be free from defects in material and workmanship. If properly used, it will perform within its applicable specifications for a period of one year after original shipment. Pico's obligation under this guarantee is limited to repairing or replacing our product to the original purchaser. This warranty is in lieu of all other warranties, express or implied and constitutes fulfillment of our obligations to the purchaser. We do not guarantee that the products can be used for a particular purpose other than those solely covered by the product's specifications. Pico must be notified if the product must meet particular certifications and/or standards. We assume no liability, in any event, for consequential damages, for anticipated or lost profits, incidental damages or loss of time or other losses incurred by the purchaser or any third party in connection with products covered by this warranty or otherwise. The purchaser will indemnify and hold Pico harmless for any damages, losses, costs, etc. from usage not within the product's specifications. Pico must be consulted before usage of its products in a nuclear, radioactive or space environment.

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