


MICROTRAN

Miniaturized Transformers

PICO MINIATURE TRANSFORMERS — PM SERIES (FIG. A)

PM-M (fig. A) Epoxy molded finish with gold plated leads, 0.020" x 3/4". Frequency Response ± 2 db, 300 cps to 100 kc, except PM3 and PM5, to 45 kc. Power level given for 15% max. distortion, except PM35, 20% and PM37, 25%. Maximum size, .465" x .310". Weight, 0.1 oz. MIL type TF5RX-ZZ (Insert MIL No. from table).
 PM-F (fig. G) Open Frame 4 inch #30 plastic leads, resin impregnated. Size .250" x .375" x .406" MIL type TF5RX-ZZ (Insert MIL No. from table).

Microtran No.	Application	Impedance		Pri DC Ma*	DC Resist., Ohms		Power Level Mw	MIL No.	Net Each	
		Primary	Secondary		Pri.	Sec.			—M	—F
PM3	Input	200K CT	1K CT	0	5300	110	10	16	\$7.65	—
PM5	Input	200K	1K	0	5300	110	10	16	6.60	—
PM7	Interstage	50K CT	1K CT	0	3300	75	10	16	7.50	—
PM9	Interstage	50K	1K/250†	0	3300	75	10	16	8.10	—
PM11	Interstage	25K CT	1K CT	0.5	1700	110	40	12	7.05	—
PM13	Interstage	25K	1K/250†	0.25	1700	110	40	12	7.65	—
PM15	Interstage	25K	1K	0.25	1700	110	40	12	6.15	5.10
PM17	Isolation	10K CT	10K CT	1	1000	1300	50	12	7.65	—
PM19	Driver	10K CT	2K CT	1	1000	300	50	12	6.75	—
PM21	Driver	10K	2K/500†	0.5	1000	300	50	12	7.35	—
PM23	Driver	10K CT	1200 CT	1	1050	280	50	12	6.75	—
PM25	Driver	10K	1200/300†	0.5	1050	280	50	12	6.00	4.80
PM27	Driver	10K	1200	0.5	1050	280	50	12	6.75	—
PM29	Driver	10K CT	500 CT	1	1050	80	50	12	6.75	—
PM31	Isolation	2500	2500 CT	1	250	325	50	12	6.30	5.25
PM33	Output	1500 CT	600	3	170	95	50	12	6.15	4.95
PM35	Output	500	50	3	60	8	50	17	5.40	4.35
PM37	Output	120 CT	3.2	10	16	0.75	50	17	5.70	4.65
PM39	Audio Choke	6 hys.	.....	2	1800	.....	.....	20	5.40	4.20
PM41	Audio Choke	.3 hys.	.....	42	43	.....	.....	20	4.65	3.90

*Unbalanced. †Split. •These items available in open frame construction.

DC TO DC CONVERTER TRANSFORMERS SWITCHING TYPE

Provides improved reliability and efficiency over vibrator and rotary power converters. Approx. 800 cps repetition rate. Full wave and CT loads may be drawn simultaneously, but VA output should not be exceeded for continuous duty. Fig. B except M8072, Fig. C.

Microtran No.	In-put VDC	VA Output	Transistors Suggested	DC Output				Size, Inches W. x D. x H.	Mtg. Ctrs., In.		MIL Case	Net Each, 1-9*
				V.	Ma	CT FW V.	CT FW Ma		ML	MW		
M8034	28	125	Delco 2N174	500	250	250	420	2 3/8 x 2 3/4 x 3 1/4	2 1/8	1 3/4	GA	\$26.70
M8035	13.6	125	Deico 2N442	500	250	250	420	2 3/8 x 2 3/4 x 3 1/4	2 1/8	1 3/4	GA	26.70
M8036	13.6	40	Deico 2N442	450	90	225	155	2 1/4 x 2 3/4 x 3 1/4	1 1/4	1 1/4	FA	24.90
M8072	2.7	190†	Deico 2N1307	480*	400†	.....	.....	1 1/2 x 1 1/4 x 3/32	1 3/8	.....	ZZ	5.40

*Output when used with half wave cap. input rectifier. ‡µa. †µm.

BLOCKING OSCILLATOR TYPE

Approx. 400 cps repetition rate. Fig. C, except M8051, Fig. D.

Microtran No.	Turns Ratio HV: Coll.: Feedback	Input		Output		Size, Inches W. x D. x H.	Mtg. Ctr., In.	Net Each, 1-9*
		DC V.	DC Ma	DC Volts	DC µa			
M8050	600:12:1	3	20	1000*	25	1 3/4 x 1 1/4 x 3/32	1 3/8	\$.555
M8051	600:12:1	3	20	1000*	25	1 x 1 x 1 1/8	1 1/8	11.85
M8073	44:1:1	4	2—15†	425—500†	50†	1/4 x 1/2 x 1/4	.....	5.25
M8074	65.5:33:1	3	45	535*	90	1 3/4 x 1 1/4 x 3/32	1 3/8	5.10

*When used in blocking oscillator circuit with single cap. input rectifier. †Varies with load and bias conditions. Frequency varies from 100 to 2800 cps. •Maximum.

MICRO-MINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — MM AND MMT SERIES

MM-M (Fig. E): Molded, for plug-in printed circuit applications. Cast epoxy resin for high resistance to extremes of ambient temperature. MIL Type TF6RX — ZZ (Insert MIL No. from table). Size 7/8" x 3/4" x 1/2" with 3/16" pins, .020" dia. Weight, 1/2 oz. MM-H (Fig. F): Hermetically sealed with high compression glass terminals. Gray enamel

finish. MIL Type TF4RX — YY. Size, 1 1/4" dia. x 1/4". Weight, 3/4 oz. MM-FB (Fig. C): Open frame with channel on special order. MIL Type TF6RX — ZZ. Size, 1 1/4" x 1 1/4" x 1 1/4", plus tabs. MM-CM (Fig. H): Connector molded on special order only, size 7/8" x 1/4" x 3/32". Designed for chassis mounting with solder terminals on top of transformer.

Microtran No. †	Application	Impedance		Pri. Unbal. DC Ma	Oper. Level, dbm	Freq. Resp. ± 2 db CPS	MIL No.	Net Each, Lots of 1-9*		
		Pri.	Sec.					-FB	-H	-M, -CM
MM1-	Input	200/50	250K/62.5K	0	4	200—10K	10	\$4.50	\$7.35	\$8.55
MM2-	Interstage 3:1	10K	90K	0	4	150—10K	10	4.80	7.50	8.70
MM3-	Plate to line	10K	200	3	20	150—10K	13	4.20	7.20	8.40
MM4-	Output	30K	50	1	20	150—10K	13	4.05	7.05	8.25
MM5-	Reactor 50 hy. at 1 mil DC	4.7K ohms	DC Res.	.....	.....	.....	20	4.05	6.90	8.10
MM6-	Output	100K	60	0.5	20	250—10K	13	4.20	7.20	8.40
MM7-	Output	30K	1200	0.5	20	200—10K	13	3.30	6.45	7.65
MMT1-	Line to base	600	600	8	22	200—15K	17	3.90	7.35	8.55
MMT3-	Coll. to base or line	50K	600	0.7	20	200—15K	13	4.05	7.50	8.70
MMT4-	P-p coll. to p-p base	50K CT	600 CT	1.4	20	200—15K	13	4.80	8.55	9.75
MMT5-	Coll. to speaker	50K	6	1	20	200—15K	13	4.35	7.95	9.15
MMT7-	Coll. to p-p base	25K	1200 CT	1	20	200—15K	13	4.50	8.40	9.60
MMT8-	P-p coll. to p-p base	50K CT	1200 CT	1.4	20	200—15K	13	4.65	8.55	9.75
MMT9-	Line to p-p base	600 CT	1200 CT	16	22	200—15K	17	4.20	7.65	8.85
MMT10-	Coll. to base	25K	600	1	20	200—15K	13	3.45	7.20	8.40
MMT11-	P-p coll. to p-p base or line	4K CT	600 CT	5	28	200—15K	12	4.35	7.80	9.00
MMT12-	Coll. to speaker	2K	3.4	5	28	200—15K	13	3.90	7.35	8.55
MMT13-	Output p-p coll. to speaker	4K CT	3.4	5	28	200—15K	13	4.05	7.50	8.70
MMT16-	Coll. to p-p base	10K	1500 CT	1	20	200—15K	13	4.50	8.40	9.60
MMT17-	P-p coll. to p-p base	10K CT	200 CT	6	20	200—15K	13	4.50	8.10	9.30
MMT18-	P-p coll. to p-p base	25K CT	1200 CT	2	20	200—15K	13	4.65	8.55	9.75
MMT19-	Coll. to p-p base	2500	2500 CT	2	23	200—15K	13	4.05	7.50	8.70
MMT21-	P-p coll. to p-p base	4K CT	600/150 Split	5	28	200—15K	13	4.65	8.55	9.75
MMT25-	P-p coll. to p-p base	7500 CT	600 CT	4	22	200—15K	13	4.35	7.80	9.00
MMT26-	Line to base	600 CT	600 CT	16	22	200—15K	17	4.20	7.65	8.85
MMT27-	P-p coll. to p-p base	25K CT	600 CT	2	20	200—15K	13	4.50	8.40	9.60
MMT28-	P-p coll. to p-p base	10K CT	1500 CT	2	20	200—15K	13	4.65	8.55	9.75
MMT29-	Driver/Isolation	10K CT	10K CT	2	20	200—15K	13	4.65	8.55	9.75
MMT30-	P-p coll. to p-p base	7500 CT	1200 CT	4	22	200—15K	13	4.50	8.40	9.60
MMT31-	P-p coll. to p-p base	2K CT	500 CT	10	28	200—15K	13	4.35	8.25	9.45
MMT32-	Line to p-p base	600 CT	1200/300 Split	16	22	200—15K	17	4.65	8.55	9.75

*SEE FOURTH MICROTRAN PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

-CM \$12.50 setup charge

†ORDER BY COMPLETE MICROTRAN NUMBER; EXAMPLE MM1-FB.

Also see EEM pages for additional items and list of franchised distributors.



MICROTRAN

SECTION 5600

Miniaturized Transformers

ULTRA-MINIATURE TRANSISTOR TRANSFORMERS — UM SERIES

Frequency Response: ± 2 db, 300-10K cps. Leads supplied, 4" #27 color-coded. Power Levels given for 7 1/2% max. distortion. UM-F (Fig. A); Size, 3/8" x 3/8" x 1/2". Weight, 0.08 oz. MIL type TF6RX—ZZ (Insert MIL No. from table). UMM-M (Fig. B); Size, 1/2" dia. x 1/2". Wt., 0.14 oz. MIL type TF5RX—ZZ.

Microtran No.†	Application	Impedance		Unbal. Pri., DC Ma	DC Resist., Ohms		Level at 1 kc, mw	MIL No.	Net Each, 1-9*	
		Primary	Sec.		Pri.	Sec.			-F	-M
UM21-	Input	100K	1K	0	1900	135	70	16	\$6.00	\$6.60
UM22-	Driver	20K	1K	0.5	1100	100	300	13	4.35	5.40
UM23-	Driver	20K	1200 CT	0.5	1100	110	300	13	4.65	6.00
UM24-	Output	1K	50	3	65	10	500	17	3.90	4.95
UM25-	Output	400	50	3	35	5	500	17	3.90	4.95
UM26-	Output	400	11	3	35	1.5	500	17	3.90	4.95
UM27-	Output	400 CT	11	6	35	1.5	500	17	4.20	5.25
UM28-	Choke	10 hy., (0 DC)	.....	8 hy., (0.5 ma)	650	.....	.....	20	3.75	5.25
UM29-	Interstage	600 CT	600 CT	7	45	60	400	21	4.65	5.70
UM30-	Choke	1.5 hy., (0 DC)	.....	7 hy., (2 ma)	100	.....	.....	20	3.60	4.50
UM31-	Interstage	10K CT	1200 CT	2	850	120	500	21	4.80	5.85
UM32-	Output	1500 CT	600	5	135	65	500	17	4.35	5.40
UM33-	Output	1K CT	600	6	80	65	500	17	4.35	5.40
UM34-	Driver	10K CT	600 CT	2	850	40	500	13	4.50	5.55
UM35-	Isolation	15K CT	15K CT	1	930	1210	300	15	4.95	6.15

UM-90: Shield can for all UM-M Series, UM90 (Fig. J).

VERI-MINIATURE TRANSISTOR TRANSFORMERS — VM SERIES

Frequency Response: ± 2 db, 200-10K cps. Leads supplied, 4" #27 color-coded. Power Levels given for 7 1/2% max. distortion. VM-M (Fig. C); For plug-in printed circuit applications. Cast Epoxy resin provides high resistance. Size, 3/8" x 3/8" x 1/2". Weight, 0.25 oz. MIL type TF2RX—ZZ (Insert MIL No. from table). VM-FPB (Fig. D); Plug-in tab mounted channel. Size, 1/2" x 3/8" x 3/8". Weight, 0.2 oz. MIL type TF6RX—ZZ.

Micro No.†	Application	Impedance		DCR, Pri.	Ohms, Sec.	Level, mw	MIL No.	Net Ea., 1-9*	
		Primary	Secondary					-FPB	-M
VM1-	Input	50	600, (1.5 ma)	7	90	15	21	\$4.20	\$5.55
VM2-	Input or intrstg.	200K	600, (1.0 ma)	3000	110	5	21	5.70	7.20
VM3-	Interstage	25K	600, (1.0 ma)	720	45	5	21	4.50	6.30
VM4-	Input or intrstg.	200K	1200, (.72 ma)	3100	165	5	21	5.70	7.20
VM5-	Interstage	50K	600, (1.0 ma)	830	55	5	21	4.65	6.60
VM6-	Interstage	100K	1200†, (.72 ma)	2000	150	5	21	5.85	7.35
VM7-	Output	500, (3.5 ma)	3.4	50	0.5	15	21	4.20	5.55
VM8-	Output	1250, (2.0 ma)	3.4	135	0.5	15	21	4.35	5.70
VM9-	Output	1250, (2.0 ma)	50	135	6.5	15	21	4.35	5.70
VM10-	Interstage	2500, (1.5 ma)	2500 CT	225	215	3	21	4.65	6.90
VM11-	Choke	20 hy., (0 ma)	12 hy., (.5 ma)	1000	.....	.....	21	4.05	5.10
VM12-	Interstage	20K	1000, (.75 ma)	625	85	5	21	4.50	6.30
VM13-	Interstage	20K	1000†, (.75 ma)	625	85	5	21	4.65	6.90
VM14-	Interstage	600†, (7 ma)	600 CT	50	65	15	17	4.50	6.75
VM15-	Isolation	50K CT	50K CT	2000	2600	5	15	6.00	8.40
VM16-	Driver	500†, (7.5 ma)	250 CT	40	13	15	17	4.50	6.75

TRANSISTOR DRIVER AND OUTPUT TRANSFORMERS (FIG. E)

Hermetically sealed and magnetically shielded with MIL-T-27B construction. MIL Type TF4RX— (Add MIL No. 17 and Case from table). MIL No. 17 except where noted.

Micro No.	Application	Impedance		Pri. Unb. DC Ma	Level Watts	Freq. Resp. ± 2 db, cps	MIL Case	Net Ea., 1-9*	
		Pri.	Sec.					-F	-M
M8002*	Coll. to p-p base	560	400 CT	18	0.15	200-20K	AJ	\$11.25	
M8003*	Coll. to p-p base	625 CT	100 CT	20	1.5	200-20K	AJ	12.30	
M8004	Coll. to p-p base	5400	600 CT	15	0.075	200-15K	AH#	14.85	
M8005	Coll. to p-p base	7000	320 CT	7	0.040	70-15K	AH#	14.85	
M8006	Coll. to p-p base	10K	6500 CT	0.75	0.005	200-15K	YY#	9.45	
M8008	Coll. to speaker	25	3-4	600	3	200-20K	AJ	11.10	
M8007*	P-p auto transformer	30 CT	3-4	200	2	100-20K	AJ	11.40	
M8009	P-p output to spkr.	48 CT	3.2/8	50	5	200-20K	AJ	11.70	
M8010	P-p coll. to servo	120 CT	1K	40	6	300-15K	AJ	11.55	
M8011	P-p output to spkr.	125 CT	3-4	20	1.5	200-15K	AH	14.55	
M8012*	P-p coll. to servo	140 CT	500	50	6	300-15K	AJ	11.25	
M8013*	P-p output to spkr.	250 CT	3-4	20	0.4	70-15K	AH	14.55	
M8014	P-p output to spkr.	400 CT	11	2	0.25	300-15K	YY	9.15	
M8015	P-p coll. to servo	1600 CT	800	5	2.5	150-20K	AJ	12.00	
M8016	P-p output to spkr.	2500 CT	12	4	0.10	300-15K	YY	9.30	
M8054	P-p output to servo	250 CT	130	20	3	200-15K	AH	14.55	

†CT. *Bi-filar wound to minimize switching transients. #MIL No. 13.

SUBMINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — SM, SMT and SM-CM SERIES

SM-AF (Fig. F): MIL-T-27B-AF modified case with compression sealed ceramic terminals. Gray enamel finish. MIL Type TF4RX—YY (Insert MIL No. from table). Max. Size, 3/4" x 3/4" x 1 1/8" with two 4-40NC-2 spade mtg. bolts. Weight, 1 1/8 oz. SM-H (Fig. G): Hermetically sealed with high compression glass terminals, gray enamel finish. MIL Type TF4RX—YY. Size, 1/2" dia. x 1/2" h. Weight, 1 oz. SM-FB (Fig. H): Open

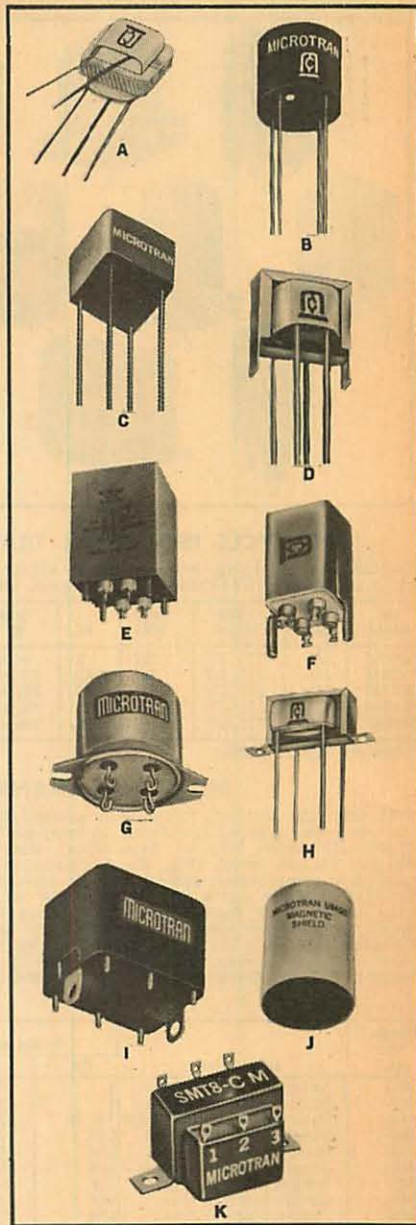
frame with channel. Available with plug-in tab mounted channel or without channel on special order. MIL Type TF6RX—ZZ. Size, 1/2" x 3/4" x 3/4", plus tabs. Weight, 0.710 oz. SM-M (Fig. I): Molded, for plug-in printed circuit applications. MIL Type TF5RX—ZZ. Size, 1/2" max. x 7/8" x 3/4". Weight, 1 1/2 oz. SM-CM (Fig. K): Contour molded, not stocked — on special order only.

Microtran No.†	Application	Impedance		Pri. Unbal. DC Ma	Oper. Level, dbm	Frequency Resp., ± 2 db, cps	MIL No.	Net Each, Lots of 1-9*			
		Pri.	Sec.					-AF	-FB	-H	-M, -CM
SM1-	Input	200/50	250K/62.5K	0	6	80-10K	10	\$9.00	\$4.35	\$7.20	\$9.00
SM2-	Interstage 3:1	10K	90K	0	8	100-10K	10	8.70	3.90	6.90	9.00
SM3-	Plate-to-line	10K	200	3	21	150-10K	13	8.70	3.90	6.90	9.00
SM4-	Output	30K	50	1	21	150-10K	13	8.70	3.90	6.90	9.00
SM5-	Reactor 50 hy. at 1 mil DC	3K ohms	DC Resist.	.....	.....	.....	20	7.20	3.30	6.30	8.40
SM6-	Output	100K	60	0.5	21	150-10K	13	8.70	4.35	7.05	9.00
SMT1-	Line to base	600	600	9	23	200-15K	17	6.75	3.90	6.00	7.20
SMT3-	Coll. to base or line	50K	600	1	20	300-15K	13	7.35	4.50	6.60	7.80
SMT4-	P-p coll. to p-p base	50K CT	600 CT	2	20	200-15K	13	.....	4.95	7.05	8.25
SMT5-	Coll. to speaker	50K	6	1	20	300-15K	13	7.20	4.35	6.45	7.65
SMT7-	Coll. to p-p base	25K	1200 CT	1.5	20	200-15K	13	7.50	4.65	6.75	7.95
SMT8-	P-p coll. to p-p base	50K CT	1200 CT	2	20	200-15K	13	.....	4.95	7.05	8.25
SMT9-	Line to p-p base	600 CT	1200 CT	18	23	200-15K	17	.....	4.20	6.30	7.50
SMT10-	Coll. to base	25K	600	2	20	200-15K	13	7.05	4.20	6.30	7.50
SMT12-	Output coll. to speaker	2K	3.4	5	30	200-15K	13	6.75	3.90	6.00	7.20
SMT13-	Output p-p coll. to speaker	4K CT	3.4	5	30	200-15K	13	6.90	4.05	6.15	7.35
SMT16-	Coll. to p-p base	10K	1500 CT	1	23	200-15K	13	7.50	4.65	6.75	7.95
SMT17-	P-p coll. to p-p base	10K CT	200 CT	6	20	200-15K	13	.....	4.80	6.90	8.10
SMT18-	P-p coll. to p-p base	25K CT	1200 CT	3	20	200-15K	13	.....	4.95	7.05	8.25
SMT19-	Coll. to p-p base	2500	2500 CT	2.5	26	200-15K	13	7.50	4.65	6.75	7.95
SMT26-	Line to base	600 CT	600 CT	18	23	200-15K	17	.....	4.50	6.60	7.80

*SEE FOURTH PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

†ORDER BY COMPLETE MICROTRAN NO. EXAMPLE, UM21-M Also see EEM pages for additional items and list of franchised distributors.

-CM \$12.50 setup charge





Miniaturized Transformers

POWER SUPPLY TRANSFORMERS

For silicon rectifier circuitry and filament applications. Hermetically sealed. Primary, 105/115/125 v. Output voltage given for resistive or inductive loads, based on approx. 1 v. drop per rectifier. MIL Type TF4RX01—(Add MIL Case Type from table) per MIL-T-27B. Fig. A except M8063 and M8069, Fig. B.

400 CYCLE TYPE

Micro. No.	Secondary		Rect. Cir.		Size, Inches W. x D. x H.	MIL Case	Net, 1-9*
	VAC	RMS	VDC±	VDC#			
M8063§	2.85	.045 a.	1.5	3	1½ dia. x 1¼	YY	\$10.56
M8064§	2.85	.045 a.	1.9	3.8	1½ x 1½ x 1¾	AH	11.10
M8039	12.6 CT	.8 a.	10.5	21	1½ x 1½ x 2¾	AJ	15.15
M8018	18.5 CT	.8 a.	7	14	1½ x 1½ x 2¾	EA	15.30
M8019	18.5 CT	3 a.	7	14	2½ x 2½ x 3¾	FA	15.90
M8085	26 CT	1.5 a.	10.7	21.5	1½ x 1½ x 2¾	EA	15.60
M8086	26 CT	3	10.7	21.5	2½ x 2½ x 3¾	FA	16.05
M8067	30 CT	.5 a.	12.5	25	2½ x 2½ x 2½	FB	15.00
M8020	35 CT	3	14.5	29	2½ x 2½ x 3¾	GA	18.00
M8068	40 CT	.2 a.	17	34	1½ x 1½ x 2¾	AJ	13.20
M8041§	50 CT	.25 a.	21.5	43	1½ x 1½ x 1¾	AH	11.10
M8069§	60 CT	.003 a.	26	52	1½ dia. x 1¼	YY	9.75
M8070§	65 CT	.170 a.	28.4	56.8	1½ x 1½ x 1¾	AH	11.25
M8021	70 CT	1 a.	30	60	2½ x 2½ x 3¾	FA	16.05
M8071	80 CT	.90 a.	35.2	70.4	2½ x 2½ x 3¾	FA	16.20

60 CYCLE TYPE

M8042	6.3 CT	.6 a.	1.9	3.8	1½ x 1½ x 2¾	AJ	\$10.20
M8043	6.3 CT	2 a.	1.9	3.8	2½ x 2½ x 2½	FB	12.00
M8044	12.6 CT	2 a.	10.5	21	3½ x 3½ x 3¾	JB	21.60
M8022	18.5 CT	3 a.	7	14	3½ x 3½ x 3¾	JB	20.25
M8045	28 CT	.6 a.	11.7	23.4	2½ x 2½ x 3¾	FA	16.35
M8055	30 CT	2.5 a.	12.5	25	3½ x 3½ x 4¾	JA	25.65
M8023	35 CT	3 a.	14.5	29	3½ x 3½ x 5¼	KA	26.10
M8046	49 CT	2.5 a.	21	42	3½ x 3½ x 5¼	LA	28.20
M8024	70 CT	1 a.	30	60	3½ x 3½ x 4¾	JA	25.65
M8056	80 CT	.6 a.	35	70.5	2½ x 3½ x 4¼	HA	16.65
M8057	115 CT	.9 a.	51	102	3½ x 3½ x 5¼	KA	25.35

‡CT full wave. #F.W. bridge. §Pri. 115v. only.

400 CYCLE ISOLATION TRANSFORMERS

Electrostatic shielding. Also for use in either F.W. bridge or F.W. CT circuit. MIL Type TF4RX01— Fig. A except M8058, Fig. B.

No. Micro.	Volts Input	Volts Output	Amps RMS	VA	Size, Inches W. x D. x H.	MIL Case	Net, 1-9*
M8058	115	115 CT	.017	2	1½ dia. x 1¼	YY	\$ 9.60
M8059	115	115 CT	.35	40	1½ x 1½ x 2¼	EB	14.70
M8060	115	115 CT	1.3	150	2½ x 2¾ x 3¾	GA	18.45
M8061	115*	115 CT	2.6	300	3½ x 3¾ x 4¾	JA	24.90
M8062	115*	115 CT	4.4	500	3½ x 3¾ x 5¼	KA	26.85

*Primary 105/115/125v.

MINIATURE TRANSISTOR AND AUDIO TRANSFORMERS—MT AND M SERIES

M-M (Fig. C): Molded, for plug-in printed circuit use. Cast epoxy resin provides highest resistance to temperature extremes. MIL Type TF5RX—ZZ (Insert MIL No. from table). Max. Size, 1½" x 7/8" x 7/8". Weight, 1¼ oz. M-AG (Fig. D): Enclosed in modified MIL-T-27 BG case with compression sealed ceramic terminals. MIL Type TF4RX—YY. Max. Size, 1" x 1" x 1¾". Weight, 2¾ oz. M-H (Fig. E): Hermetically sealed with high compression glass terminals, gray enamel finish. Available on special order with .120" holes. MIL Type TF4RX—YY. Size 1½" dia. x 1¼" max. Weight, 1¼ oz. M-A (Fig. F): Aluminum case with 2-56 screws. MIL Type TF6RX—ZZ. Size, .875" dia. x 1¼". Weight, 1.25 oz. M-FB (Fig. G): Open frame with channel. Available

with plug-in tab channel or without channel on special order. MIL Type TF6RX—ZZ. Size, 1½" x 1¼" x 2¾" max., plus tabs. Weight, 1.13 oz. M-P (Fig. H): Octal plug-in type in sealed plastic housing. MIL Type TF6RX—ZZ. Size, 1½" dia. x 1½". Weight, 2 oz. M-A-Sh Shield: 25 db magnetic shield to match Type M-A. Two clearance holes on 1/8" centers. M-PC (Fig. J) Open Frame printed circuit with terminals molded into bobbin to maintain accurate dimensions for printed circuit board, weight 1.2 oz. size 7/8" x 1½" x 1", terminals 3/16" below bobbin, MIL type TF6RX—ZZ. M-CM (Fig. I) Contour molded, not stocked on special order only. Size 1½" x 7/8" x 7/8". \$12.50 setup charge.

MINIATURE AUDIO TRANSFORMERS—M SERIES

Micro-tran No.†	Application	Impedance		Pri. DC Ma*	Oper. Level, dbm	Freq. Resp. ± 2 db, cps	MIL No.	Net Each, Lots of 1-9*					
		Pri.	Sec.					-A	-AG	-FB, -PC	-H	-M, -CM	-P
M1-	Mike or line to 1 grid	±	50K	0	5	20—20K	10	\$ 7.50	\$ 9.90	\$ 4.05	\$ 9.00	\$ 9.90	\$ 8.85
M2-	Mike or line to 2 grids	±	50K CT	0	5	20—20K	10	7.65	10.35	4.20	9.45	10.20	8.85
M3-	Dynamic mike to 1 grid	7.5/30	50K	0	5	20—20K	10	7.50	9.90	3.90	9.00	9.75	8.40
M4-	Single plate to 1 grid	15K	60K	0	6	20—15K	10	6.45	8.55	3.45	7.65	8.55	7.50
M5-	Single plate to 1 grid	15K	60K	4	14	200—20K	15	6.45	8.55	3.45	7.65	8.55	7.50
M6-	Single plate to 2 grids	15K	95K CT	0	5	20—15K	10	7.35	9.45	3.60	8.55	9.45	8.25
M7-	Single plate to 2 grids	15K	95K CT	4	11	200—20K	15	7.35	9.75	3.75	8.85	9.75	8.25
M8-	Single plate to line	15K	±	0	8	20—20K	16	7.65	10.50	3.75	9.60	10.50	8.85
M9-	Single plate to line	15K	±	0	21	150—20K	13	7.65	10.50	3.75	9.60	10.50	8.85
M10-	Push-pull plate to line	30K, p-p	±	0	8	30—50K	16	8.25	10.80	3.90	9.60	10.80	9.00
M11-	Crystal mike to line	50K	±	0	5	20—20K	16	7.65	10.50	3.75	9.30	10.50	8.85
M12-	Mixing and matching	±	±	0	8	20—20K	16	7.50	10.50	3.75	9.30	10.50	9.00
M13-	Reactor	300#	±	.....	.....	6K ohms DCR	20	6.15	8.25	3.30	7.35	8.25	7.50
M14-	50:1 mike to grid	200	½ meg.	0	9	80—3K	10	7.35	9.90	3.90	9.00	10.20	8.85
M15-	10:1 plate to grid	10K	1 meg.	0	11	100—2500	10	7.35	9.30	3.60	8.40	9.30	8.85

MINIATURE TRANSISTOR TRANSFORMERS—MT SERIES

MT1-	Line to base	600	600	10	23	200—15K	17	\$7.20	\$8.70	\$3.60	\$7.80	\$9.00	\$7.35
MT2-	Coll. to p-p base 2N57	100	10 CT/ 40 CT	100	27	200—20K	17	8.10	9.60	4.20	8.70	9.90	8.25
MT3-	Coll. to base or line	50K	600	3	20	300—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT5-	Coll. to speaker	50K	6	3	20	300—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT6-	Coll. to p-p base	100K	1200 CT	1.4	17	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT7-	Coll. to p-p base	25K	1200 CT	3	22	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT8-	P-p coll. to p-p base	50K CT	1200 CT	3	20	300—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT9-	Line to p-p base	600 CT	1200 CT	4	23	200—15K	17	8.10	9.60	4.20	8.70	9.90	7.80
MT10-	Coll. to base	25K	600	3	22	200—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT11-	P-p coll. to p-p base	4K CT	600 CT	3	32	200—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT12-	Output coll. to spkr.	2K	3.4	10	32	200—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT13-	P-p coll. to spkr.	4K CT	3.4	3	32	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT14-	Coll. to spkr. 2N179	400	10	50	25	200—20K	13	7.20	8.70	3.60	7.80	9.00	7.35
MT15-	P-p servo output 2N57	50K CT	210	30	27	300—20K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT18-	P-p coll. to p-p base	25K CT	1200 CT	6	22	200—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT20-	P-p coll. to p-p base	50K CT	Δ	3	20	300—15K	13	8.40	9.90	4.50	9.00	10.20	8.55
MT21-	P-p coll. to p-p base	4K CT	■	3	32	200—15K	13	8.25	9.75	4.35	8.85	10.05	8.40
MT22-	Line to p-p base	1200 CT	■	4	23	200—15K	17	8.25	9.75	4.35	8.85	10.05	8.40
MT23-	P-p coll. to servo	250 CT	1000	10	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT24-	Coll. to p-p base	2500	600 CT	10	32	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT25-	P-p coll. to p-p base	7500 CT	600 CT	8	32	200—15K	12	8.10	9.60	4.20	8.70	9.90	8.25
MT26-	Line to p-p base	600 CT	600 CT	20	23	200—15K	17	7.95	9.45	4.05	8.55	9.75	8.10
MT29-	P-p coll. to servo	1600 CT	450	15	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT30-	P-p coll. to servo	250 CT	500	10	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
M-A-Sh	Shield can for M-A	.....	.....	.....	.....	.....	.....	1.35	.....	.....	.....	.....	.....

*Unbalanced. †50/250/600 CT. ‡50/250 CT. §Hy. 0 DC. ¶50 h. at 3 ma. Δ1200/300 split. ■600/150 split. •These items are not available in —PC construction.

•SEE FOURTH PAGE FOR QUANTITY PRICING. †ORDER BY COMPLETE MICROTRAN NUMBER: EXAMPLE MT-A. Also see EEM pages for additional items and list of franchised distributors.



MICROTRAN

Miniaturized Transformers

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Efficiently transfers 30-500 cps. Transducer or thermocouple signals to instrument amplifiers. Resin impregnated to minimize mechanical vibration noise signal. Three mu-metal and two copper shields insure low hum pickup. Accurate center taps and external electrostatic shield connection improve low level operation. Signal level range, 0.5 μ v to 0.5 v. 90 db magnetic shielding. Size, 1 $\frac{3}{8}$ " dia. x 1 $\frac{1}{2}$ " h — 2 (6 x 32 x $\frac{3}{8}$ " stud), on 1 $\frac{1}{2}$ " centers. Weight 4.5 oz.

Micro-tran No.	Turn Ratio		Full Pri. Hys*	Full Pri. Imped.*	DC Resis.		Fig. No.	Net Each, 1-9*
	Full Pri. Full Sec.	1/2 Pri. Full Sec.			Full Pri.	Sec.		
M8025	1:7.7	1:15.4	17.5	6,600	365 Ω	4140 Ω	A	\$13.80
M8026	1:3.2	1:6.4	60 hy	22,500	455 Ω	3500 Ω	A	13.80
M8052	1:4.53	1:9.06	90	34,000	760 Ω	5220 Ω	A	14.25
M8053*	1:0.5	1:1	140	53,000	920 Ω	653 Ω	A	13.65

Micro-tran No.	Turn Ratio		Full Pri. Hys*	Full Pri. Imped.*	DC Resis.		Fig. No.	Net Each, 1-9*
	Full Pri. Full Sec.	1/2 Pri. Full Sec.			Full Pri.	Sec.		
M8525	1:7.7	1:15.4	17.5	6,600	365 Ω	4140 Ω	AA	\$16.65
M8526	1:3.2	1:6.4	60 hy	22,500	455 Ω	3500 Ω	AA	16.55
M8552	1:4.53	1:9.06	90	34,000	760 Ω	5220 Ω	AA	17.10
M8553*	1:0.5	1:1	140	53,000	920 Ω	653 Ω	AA	16.50

*Secondary is center tapped.

At 0.5 v., 60 cps.

PLUG-IN TRANSFORMERS (FIG. B)

Broadcast fidelity type, double mu-metal shielded. Octal base, except M8032 and M8033, 9-pin.

M8030 is designed as a replacement for Ampex No. 1733-1; M8032 and M8033 mate with sockets on many RCA amplifiers. Frequency Response: \pm 2 db, 20-20K. (M8031, \pm 2 db, 30-20K.) Magnetic shielding, 65 db. Level, +5 dbm.

Micro No.	Impedance		Size, In. H. x Dia.	Wt., Oz.	Net Ea., 1-9*
	Pri.	Sec.			
M8030	200/50 CT	50K	2 $\frac{1}{8}$ x 1 $\frac{1}{8}$ dia.	6	\$13.50
M8031	600 CT/150	50K	2 $\frac{1}{8}$ x 1 $\frac{1}{8}$ dia.	6	13.35
M8032	250 CT	50K	2 $\frac{1}{8}$ x 1 $\frac{1}{8}$ dia.	6	13.05
M8033	50 CT	50K	2 $\frac{1}{8}$ x 1 $\frac{1}{8}$ dia.	6	13.05

MODEL 400K TRANSISTOR TRANSFORMER SELECTOR KIT (FIG. C)

- IDEAL FOR BREADBOARD CIRCUITRY • FULL DESIGN DATA

Set of nine transistor transformers covers impedance range of 150 through 200K ohms, matching most new transistor impedance ratings. Sizes range from a $\frac{3}{8}$ " cube to $\frac{3}{4}$ " x $\frac{3}{4}$ " x 1". All units vacuum resin impregnated for long, reliable life and for protection against rough handling. Each type has 4" color-coded leads. Includes full design data: nomographs and circuitry for determining correct impedances for Class A and B transistor amplifiers; power versus dbm chart; terminal connection sheet; guide to MIL-T-27B; cross reference index; outline drawings for later selection of stock items with same electrical ratings in many other mechanical constructions. Individually boxed in transparent plastic case. Model 400K Transistor Transformer Selector Kit Net Each \$29.50*

*Standard quantity discounts do not apply.

MICROTRAN TRANSFORMERS ARE AVAILABLE IN MANY OTHER MECHANICAL AND ELECTRICAL TYPES ON SPECIAL ORDER. WRITE FOR COMPLETE INFORMATION.



STANDARD MIL-T-27B CASE SIZES

Case Type	Size, Inches W. x L. x H.	Mtg. Centers, In.		Stud Type F
		ML	MW	
AF	$\frac{3}{8}$ x $\frac{3}{8}$ x 1 $\frac{1}{8}$	1 $\frac{1}{8}$*	.....	4-40 x $\frac{3}{8}$
AG	1 x 1 x 1 $\frac{3}{8}$	1 $\frac{1}{8}$*	.....	6-32 x $\frac{3}{8}$
AH	1 $\frac{1}{8}$ x 1 $\frac{1}{8}$ x 1 $\frac{3}{8}$	1 $\frac{1}{4}$†	.....	6-32 x $\frac{3}{8}$
AJ	1 $\frac{1}{8}$ x 1 $\frac{1}{8}$ x 2 $\frac{3}{8}$	1 $\frac{3}{8}$	1 $\frac{1}{4}$	6-32 x $\frac{3}{8}$
EA	1 $\frac{1}{8}$ x 1 $\frac{1}{8}$ x 2 $\frac{3}{8}$	1 $\frac{3}{8}$	1 $\frac{1}{4}$	6-32 x $\frac{3}{8}$
EB	1 $\frac{1}{8}$ x 1 $\frac{1}{8}$ x 2 $\frac{1}{4}$	1 $\frac{3}{8}$	1 $\frac{1}{4}$	6-32 x $\frac{3}{8}$
FA	2 $\frac{1}{8}$ x 2 $\frac{1}{8}$ x 3 $\frac{1}{8}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	6-32 x $\frac{3}{8}$
FB	2 $\frac{1}{8}$ x 2 $\frac{1}{8}$ x 2 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	6-32 x $\frac{3}{8}$
GA	2 $\frac{1}{8}$ x 2 $\frac{3}{4}$ x 3 $\frac{1}{8}$	2 $\frac{1}{4}$	1 $\frac{3}{4}$	6-32 x $\frac{3}{8}$
HA	2 $\frac{1}{8}$ x 3 $\frac{1}{8}$ x 4 $\frac{1}{4}$	2 $\frac{1}{4}$	1 $\frac{3}{4}$	8-32 x $\frac{3}{8}$
JA	3 $\frac{1}{8}$ x 3 $\frac{1}{8}$ x 4 $\frac{7}{8}$	2 $\frac{1}{2}$	1 $\frac{3}{4}$	8-32 x $\frac{3}{8}$
JB	3 $\frac{1}{8}$ x 3 $\frac{1}{8}$ x 3 $\frac{7}{8}$	2 $\frac{1}{2}$	2 $\frac{1}{8}$	8-32 x $\frac{3}{8}$
KA	3 $\frac{3}{8}$ x 3 $\frac{1}{8}$ x 5 $\frac{1}{4}$	3	2 $\frac{1}{8}$	10-32 x $\frac{1}{2}$
LA	3 $\frac{1}{8}$ x 4 $\frac{1}{8}$ x 5 $\frac{1}{8}$	3 $\frac{1}{8}$	2 $\frac{1}{8}$	10-32 x $\frac{1}{2}$
YY	All metal not included above or with non-std. mtg. ctrs.			
ZZ	Open type and encapsulated			

*Not in conformance with MIL-T-27B. †Two studs in a diagonal.

*QUANTITY PRICING

Net Each, 1-9	Net Each, Lots of		
	10-49	50-99	100-249
\$ 1.35	\$ 1.22	\$ 1.13	\$ 0.90
3.30	2.97	2.75	2.20
3.45	3.10	2.88	2.30
3.60	3.24	3.00	2.40
3.75	3.38	3.13	2.50
3.90	3.51	3.25	2.60
4.05	3.64	3.38	2.70
4.20	3.78	3.50	2.80
4.35	3.91	3.63	2.90
4.50	4.05	3.75	3.00
4.65	4.18	3.88	3.10
4.80	4.32	4.00	3.20
4.95	4.45	4.13	3.30
5.10	4.59	4.25	3.40
5.25	4.73	4.38	3.50
5.40	4.86	4.50	3.60
5.55	4.99	4.63	3.70
5.70	5.13	4.75	3.80
5.85	5.27	4.88	3.90
6.00	5.40	5.00	4.00
6.15	5.54	5.13	4.10
6.30	5.67	5.25	4.20
6.45	5.81	5.38	4.30
6.60	5.94	5.50	4.40
6.75	6.08	5.63	4.50
6.90	6.21	5.75	4.60
7.05	6.35	5.88	4.70
7.20	6.48	6.00	4.80
7.35	6.61	6.13	4.90
7.50	6.75	6.25	5.00

Net Each, 1-9	Net Each, Lots of		
	10-49	50-99	100-249
\$ 7.65	\$ 6.89	\$ 6.38	\$ 5.10
7.80	7.02	6.50	5.20
7.95	7.15	6.63	5.30
8.10	7.29	6.75	5.40
8.25	7.42	6.88	5.50
8.40	7.56	7.00	5.60
8.55	7.69	7.13	5.70
8.70	7.83	7.25	5.80
8.85	7.97	7.38	5.90
9.00	8.10	7.50	6.00
9.15	8.24	7.63	6.10
9.30	8.37	7.75	6.20
9.45	8.51	7.88	6.30
9.60	8.64	8.00	6.40
9.75	8.77	8.13	6.50
9.90	8.91	8.25	6.60
10.05	9.04	8.38	6.70
10.20	9.18	8.50	6.80
10.35	9.32	8.63	6.90
10.50	9.45	8.75	7.00
10.65	9.59	8.88	7.10
10.80	9.72	9.00	7.20
10.95	9.85	9.13	7.30
11.10	9.99	9.25	7.40
11.25	10.12	9.38	7.50
11.40	10.26	9.50	7.60
11.55	10.39	9.63	7.70
11.70	10.53	9.75	7.80
11.85	10.66	9.88	7.90
12.00	10.80	10.00	8.00
12.15	10.94	10.13	8.10
12.30	11.07	10.25	8.20
12.45	11.21	10.38	8.30

Net Each, 1-9	Net Each, Lots of		
	10-49	50-99	100-249
\$13.20	\$11.88	\$11.00	\$ 8.80
13.35	12.01	11.13	8.90
13.50	12.15	11.25	9.00
13.65	12.28	11.38	9.10
13.80	12.42	11.50	9.20
14.25	12.82	11.88	9.50
14.55	13.09	12.13	9.70
14.70	13.23	12.25	9.80
14.85	13.36	12.38	9.90
15.00	13.50	12.50	10.00
15.15	13.63	12.63	10.10
15.30	13.77	12.75	10.20
15.60	14.04	13.00	10.40
15.90	14.31	13.25	10.60
16.05	14.44	13.38	10.70
16.20	14.58	13.50	10.80
16.35	14.71	13.63	10.90
16.65	14.98	13.88	11.10
18.00	16.20	15.00	12.00
18.45	16.60	15.37	12.30
20.25	18.22	16.87	13.50
21.60	19.44	18.00	14.40
24.90	22.41	20.75	16.60
25.35	22.81	21.12	16.90
25.65	23.09	21.38	17.10
26.10	23.49	21.75	17.40
26.70	24.03	22.25	17.80
26.85	24.16	22.38	17.90
28.20	25.38	23.50	18.80

ORDER BY COMPLETE MICROTRAN NUMBER. Also see EEM pages for additional items and list of franchised distributors.



MICROTRAN

Toroidal Inductors

MICRO-MINIATURE TOROIDAL INDUCTORS — QG SERIES

QG-F: Open frame microcrystalline wax dipped with 4" #27 plastic leads. Size, $\frac{5}{8}$ " dia. x $\frac{1}{2}$ ".
 QG-M: Molded in high temperature epoxy resin with .020" x 2" gold plated nickel alloy leads.
 Leads may be bent downward for plug-in printed circuit use. Size, $\frac{7}{8}$ " dia. x $\frac{3}{8}$ ".

QGL SERIES

Frequency range, to 20 kc; accuracy, $\pm 2\%$.

Microtran No.†	Inductance	Typ. DC Res., Ohms	Typ. Dist. Cap., $\mu\mu\text{f}$	-F Open Frame Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QGL5-	5 mh	2.5	30	\$4.35	\$3.92	\$3.63	\$2.90	\$5.70	\$5.13	\$4.75	\$3.80
QGL10-	10 mh	5	33	4.35	3.92	3.63	2.90	5.70	5.13	4.75	3.80
QGL15-	15 mh	8	34	4.50	4.05	3.75	3.00	5.85	5.27	4.88	3.90
QGL50-	50 mh	28	40	4.80	4.32	4.00	3.20	6.30	5.67	5.25	4.20
QGL100-	100 mh	50	42	4.95	4.46	4.13	3.30	6.45	5.81	5.38	4.30
QGL500-	500 mh	290	48	5.40	4.86	4.50	3.60	7.20	6.48	6.00	4.80
QGL1000-	1 hy.	530	51	6.15	5.54	5.13	4.10	7.95	7.16	6.63	5.30
QGL1500-	1.5 hys.	825	53	6.30	5.67	5.25	4.20	8.70	7.83	7.25	5.80

QGM SERIES

Frequency range, 2-100 kc; accuracy, $\pm 2\%$.

QGM1-	1 mh	1.4	22	\$4.80	\$4.32	\$4.00	\$3.20	\$6.45	\$5.81	\$5.38	\$4.30
QGM5-	5 mh	6	28	5.10	4.59	4.25	3.40	6.60	5.94	5.50	4.40
QGM10-	10 mh	12	31	5.25	4.73	4.38	3.50	6.75	6.08	5.63	4.50
GM15-	15 mh	18	32	5.40	4.86	4.50	3.60	6.90	6.21	5.75	4.60
QGM25-	25 mh	30	35	5.70	5.13	4.75	3.80	7.05	6.35	5.88	4.70
QGM50-	50 mh	52	37	6.30	5.67	5.25	4.20	7.35	6.62	6.13	4.90

SUBMINIATURE TOROIDAL INDUCTORS — QIL SERIES

Frequency range to 20 kc; accuracy $\pm 2\%$. QIL-M: Molded in high temperature epoxy with silver plated turret lugs. Size, $1\frac{1}{2}$ " dia. x $\frac{1}{2}$ ".
 QIL-F: Open frame. Microcrystalline wax dipped with 4" #27 plastic leads. Size, 1" dia. x $\frac{1}{2}$ ".
 QIL-H: Hermetically sealed in metal case with Teflon® terminals. Size, $1\frac{1}{2}$ " x $\frac{1}{2}$ " x $1\frac{1}{2}$ ". QIL-F: Open frame. Microcrystalline wax dipped with 4" #27 plastic leads. Size, 1" dia. x $\frac{1}{2}$ ".
 ®Registered DuPont trademark.

Microtran No.†	Inductance	Type DC Res., Ohms	Type Dist. Cap., $\mu\mu\text{f}$	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QIL5-	5 mh	1.1	38	\$3.90	\$3.51	\$3.25	\$2.60	\$6.75	\$6.08	\$5.63	\$4.50	\$5.25	\$4.73	\$4.38	\$3.50
QIL10-	10 mh	2.1	40	3.90	3.51	3.25	2.60	6.75	6.08	5.63	4.50	5.25	4.73	4.38	3.50
QIL25-	25 mh	5.3	45	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL50-	50 mh	11	47	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL100-	100 mh	22	49	4.20	3.78	3.50	2.80	7.65	6.89	6.38	5.10	5.70	5.13	4.75	3.80
QIL250-	250 mh	55	53	4.50	4.05	3.75	3.00	8.25	7.43	6.88	5.50	6.00	5.40	5.00	4.00
QIL500-	500 mh	95	55	4.80	4.32	4.00	3.20	8.55	7.70	7.13	5.70	6.30	5.67	5.25	4.20
QIL1000-	1 hy.	210	57	5.10	4.59	4.25	3.40	9.00	8.10	7.50	6.00	6.75	6.08	5.63	4.50
QIL2500-	2.5 hys.	550	61	6.75	6.08	5.63	4.50	10.80	9.72	9.00	7.20	8.70	7.83	7.25	5.80

MINIATURE TOROIDAL INDUCTORS — QK SERIES

QK-F: Open frame, microcrystalline wax dipped; 4" #27 plastic leads. Size, $1\frac{1}{4}$ " dia. x $\frac{5}{8}$ ".
 QK-H: Hermetic with Teflon terminals. Size, $1\frac{1}{2}$ " x $\frac{3}{4}$ " x $1\frac{1}{4}$ ".
 QK-M: Molded in high temperature epoxy resin; silver plated turret lugs. Size, $1\frac{1}{8}$ " dia. x $\frac{3}{4}$ ".

Frequency range, 10 kc; accuracy, $\pm 2\%$.

QKL SERIES

Microtran No.†	Inductance	Type DC Res., Ohms	Type Dist. Cap., $\mu\mu\text{f}$	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QKL10-	10 mh	1.1	66	\$4.50	\$4.05	\$3.75	\$3.00	\$7.20	\$6.48	\$6.00	\$4.80	\$6.15	\$5.54	\$5.13	\$4.10
QKL25-	25 mh	2.8	72	4.65	4.19	3.88	3.10	7.50	6.75	6.25	5.00	6.15	5.54	5.13	4.10
QKL50-	50 mh	6	76	4.65	4.19	3.88	3.10	7.80	7.02	6.50	5.20	6.15	5.54	5.13	4.10
QKL100-	100 mh	11	81	4.80	4.32	4.00	3.20	8.40	7.56	7.00	5.60	6.60	5.94	5.50	4.40
QKL250-	100 mh	28	87	4.95	4.46	4.13	3.30	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKL500-	500 mh	63	91	5.10	4.59	4.25	3.40	9.15	8.24	7.63	6.10	6.90	6.21	5.75	4.60
QKL1000-	1 hy.	110	96	5.25	4.73	4.38	3.50	9.60	8.64	8.00	6.40	7.20	6.48	6.00	4.80
QKL5000-	5 hys.	645	106	6.75	6.08	5.63	4.50	11.10	9.99	9.25	7.40	8.40	7.56	7.00	5.60
QKL10,000-	10 hys.	1175	112	7.50	6.75	6.25	5.00	12.45	11.20	10.38	8.30	9.60	8.64	8.00	6.40

Frequency range, 5-50 kc; accuracy, $\pm 2\%$.

QKM SERIES

QKM2-	2 mh	0.45	52	\$5.10	\$4.59	\$4.25	\$3.40	\$8.25	\$7.43	\$6.88	\$5.50	\$6.30	\$5.67	\$5.25	\$4.20
QKM5-	5 mh	1.1	58	5.25	4.73	4.38	3.50	8.40	7.56	7.00	5.60	6.45	5.81	5.38	4.30
QKM10-	10 mh	2.5	62	5.25	4.73	4.38	3.50	8.55	7.70	7.13	5.70	6.50	5.94	5.50	4.40
QKM25-	25 mh	6.5	70	5.40	4.86	4.50	3.60	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKM50-	50mh	11	74	5.55	5.00	4.63	3.70	9.00	8.10	7.50	6.00	6.90	6.21	5.75	4.60

HIGH-Q TOROIDAL INDUCTORS — QPL SERIES

Frequency range to 10 kc; accuracy $\pm 2\%$. QPL-F: Open frame, microcrystalline wax dipped; 4" #24 leads. Size, $1\frac{1}{2}$ " dia. x $\frac{1}{2}$ ".
 QPL-H: Hermetically sealed with Teflon terminals. Size, $1\frac{1}{2}$ " x $\frac{1}{2}$ " x $2\frac{1}{2}$ ".
 QPL-M: Molded in high temperature epoxy resin; silver plated turret lugs. Size, 2" dia. x 1".

Microtran No.†	Inductance	Type DC Res., Ohms	Type Dist. Cap., $\mu\mu\text{f}$	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QPL25-	25 mh	1.5	100	\$ 6.90	\$ 6.21	\$ 5.75	\$ 4.60	\$10.35	\$ 9.32	\$ 8.63	\$ 6.90	\$ 8.55	\$ 7.70	\$ 7.13	\$ 5.70
QPL50-	50 mh	2.5	105	7.05	6.35	5.88	4.70	10.50	9.45	8.75	7.00	8.70	7.83	7.25	5.80
QPL100-	100 mh	6	110	7.20	6.48	6.00	4.80	10.65	9.58	8.88	7.10	8.85	7.97	7.38	5.90
QPL500-	500 mh	25	120	7.50	6.75	6.25	5.00	10.95	9.82	9.13	7.30	9.60	8.64	8.00	6.40
QPL1000-	1 hy.	60	125	7.80	7.02	6.50	5.20	11.40	10.26	9.50	7.60	9.90	8.91	8.25	6.60
QPL5000-	5 hys.	350	138	9.45	8.51	7.88	6.30	13.20	11.88	11.00	8.80	11.10	9.99	9.25	7.40
QPL10,000-	10 hys.	600	142	11.10	9.99	9.25	7.40	15.00	13.50	12.50	10.00	12.90	11.61	10.75	8.60
QPL25,000-	25 hys.	1500	150	13.05	11.74	10.88	8.70	17.55	15.80	14.63	11.70	15.45	13.90	12.88	10.30

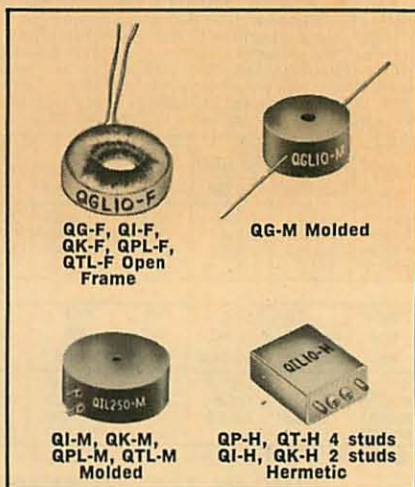
HIGH-Q TOROIDAL INDUCTORS — QTL SERIES

Frequency range to 15 kc; accuracy, $\pm 2\%$. QTL-F: Open frame, microcrystalline wax dipped with 4" #24 leads. Size, $2\frac{1}{4}$ " dia. x 1".
 QTL-H: Hermetic, Teflon terminals. Size, $2\frac{1}{4}$ " x $1\frac{1}{4}$ " x $2\frac{1}{4}$ ".
 QTL-M: Molded in epoxy resin. Size, $2\frac{1}{8}$ " dia. x $1\frac{3}{8}$ ".

QTL50-	50 mh	1.5	136	\$10.95	\$ 9.85	\$ 9.13	\$ 7.30	\$13.65	\$12.28	\$11.38	\$ 9.10	\$12.75	\$11.47	\$10.63	\$ 8.50
QTL100-	100 mh	2.8	144	11.25	10.12	9.38	7.50	13.95	12.55	11.63	9.30	13.05	11.74	10.88	8.70
QTL500-	500 mh	15	164	11.85	10.66	9.88	7.90	14.85	13.36	12.38	9.90	13.05	11.74	10.88	8.70
QTL1000-	1 hy.	27	173	12.15	10.93	10.13	8.10	15.15	13.63	12.63	10.10	13.95	12.55	11.63	9.30
QTL2500-	2.5 hys.	70	184	13.05	11.74	10.88	8.70	16.05	14.44	13.38	10.70	14.85	13.36	12.38	9.90
QTL5000-	5 hys.	140	192	13.05	11.74	10.88	8.70	16.65	14.98	13.88	11.10	15.00	13.50	12.50	10.00
QTL10,000-	10 hys.	270	200	14.25	12.82	11.88	9.50	17.25	15.53	14.38	11.50	16.20	14.58	13.50	10.80
QTL25,000-	25 hys.	850	212	16.50	14.85	13.75	11.00	19.50	17.55	16.25	13.00	18.45	16.61	15.38	12.30
QTL50,000-	50 hys.	1500	221	22.20	19.98	18.50	14.80	25.20	22.68	21.00	16.80	24.15	21.74	20.13	16.10

†ORDER BY COMPLETE MICROTRAN NUMBER; EXAMPLE QGL5-F.

Also see EEM pages for additional items and list of franchised distributors.

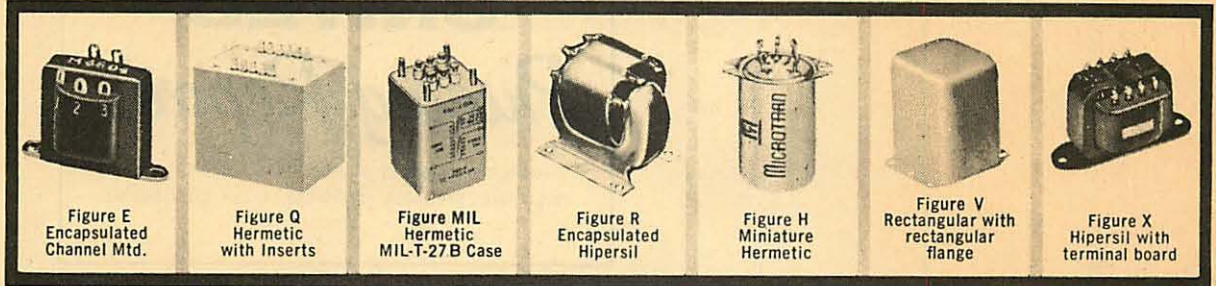




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NOT STOCK, CUSTOM BUILT TO ORDER ONLY

400 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary		Test Volts R.M.S.	Figure
	A.C. Volts	R.M.S. Amps.		
M3144	1	3	1000	AG
M2655	6.3/6.3#	1.5/1.5	1500	MIL
M2810	6.3C.T./6.3C.T.#	2.0/2.0	100	MIL-EA Q
M2611	6.3C.T./6.3C.T.#	2.0/10.0	100	MIL
M4282*	6.3C.T.	10.0	2500	MIL-FA
M4076††	6.3	20.0	2000	MIL-JB
M4042	12.6	0.25	1000	MIL-AH
M2724	12.6C.T./6.3#	3.0/1.2	1000	MIL
M2830	12.6C.T./12.6C.T.#	5.0/5.0	500	MIL-JA
M4017	26C.T./6.3C.T.#	0.1/1.7	1000	FB
M3142	26	6.5	1500	MIL-JA
M2880**	32	5.5	500	MIL-KA

400 CYCLE PLATE/FILAMENT POWER TRANSFORMERS

Part No.	Plate Supply		Rectifier Volts	Filament Amps	Figure
	A.C. Volts	D.C. Ma.			
M2751	115	5	6.3	0.35	W
M2448	128/26	20/800	6.3	2.6	MIL-FA
M1092-2	800C.T.	60	12.6C.T.	1.0	R
M1144	40	180	26.0	1.2	MIL-FA

*105/115/125 Pri. **110/115/120 Pri. †MS 16472 ††MS 16402
 #Separate Wdgs

60 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary		Test Volts R.M.S.	Figure
	A.C. Volts	R.M.S. Amps		
M1606	2.5	.01	500	H
M2229	6.3C.T./6.3C.T.#	0.6	1,000	FB
M2551	6.3	2.0	1,500	FB
M1395*	24.0	1.0	1,500	MIL-GA
M2530	25.0/25.0#	.23/.23	1,000	MIL-GB
M2808	34.0	15.0	500	MIL
M2531	40.0/40.0#	.4/.4	1,000	MIL-HB

*117V Primary

60 CYCLE ISOLATION TRANSFORMER

Part No.	Input Voltage		Output Voltage	V.A. Rating	Figure
	110	115			
M2787†	110	110	110	0.8	FB
M2901	115	115	115	6.0	V
M2294†	105/115/125	118C.T.	90.	90.	MIL
M2595	117	117	250.	250.	K

*117V Primary. #Separate Winding. †Electrostatic Shielding.

FILTER REACTORS

Part No.	Current D.C. Ma.	Inductance Henries	D.C.R. Ohms	Test Volts	Figure
FR-2	60	10	230	2,000	MIL-FA
M2490	85	15	300	2,500	V
M2243	500	2	30	1,500	MIL-KA
M2278	1A	0.05	2	500	MIL-FA
M2909	1.75A	0.016	0.5	500	MIL-GA
M2474	5A	0.005	0.03	500	MIL
M3494	6.5A	0.04	0.5	1,000	MIL-NA
M2473	25A	0.005	0.032	500	MIL

400 CYCLE SERVO DRIVER & OUTPUT TRANSFORMERS

Part No.	Primary Impedance	Pri. Unbal. D.C. Ma.	Secondary Impedance	Power Level	Figure
M2996	†20-K	3.	25	25 Mw.	MIL-AG
M2956	1,000 C.T.	0.	1,000 C.T.	150 Mw.	FPB
M2477	8,000 C.T.	4.	500 C.T.	500 Mw.	FB
M1378	6,000	38.	180	1.3 Watts	H
M2254	200 C.T.	20.	1,000	3.0 Watts	F
M2769	10,000 C.T.	9.	500	7 Watts	E
M2795	48 C.T.	30.	176	9 Watts	FB
M2849	62 C.T.	75.	510 C.T.	16 Watts	MIL-FB

†40 db Magnetic Shielding

400 CYCLE DEMODULATOR SUPPLY TRANSFORMERS

Part No.	Primary Volts	Secondary A.C. Volts	Secondary R.M.S. Ma.	Figure
M4035	6.3	2.2/2.2	10/10	M
M4284	26	3.5/3.5	15/15	F
M3434	115/57.5	5/5	1/1	R
M3472	115	30 C.T./0.5	4/50	E

AUDIO REACTORS

Part No.	Inductance Henries	Current D.C. Ma.	D.C.R. Ohms.	Figure
M2495	1.0	0	50	F
M1812	2.0	3.0	780	F
M2501	10.0	0	318	FPB
M3285	30.0	0	390	F
M2402	100.0	0	1,700	FB
M2180	25/50/250	1/0.5/0	770	F

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Part No.	Freq.	Turns Ratio 1/2 Pri. to Full Sec.	Ind. of Full Pri.	Imped. of Full Pr.	Magnetic Shielding	Figure
M3297	400	15.8/1	.65 Hy.	1 MEG	45 db	G
M3174	100	1/1	50	30 K	90 db	S
M2988	55	1/1	140	10 K	90 db	S
M2057	400	1/2.81	100	250 K.	None	H

Also see EEM pages for additional items and list of franchised distributors.