

Trans American Transformer, Inc.

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THE SOURCE FOR MILITARY MAGNETICS

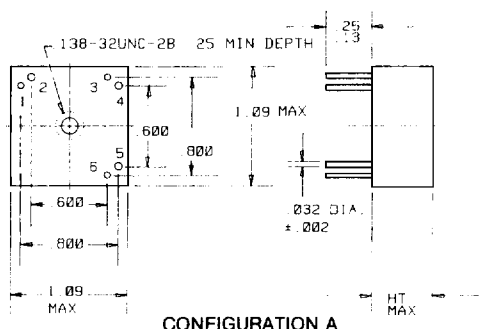
MINIATURE 400HZ power transformers

....OFF-THE-SHELF

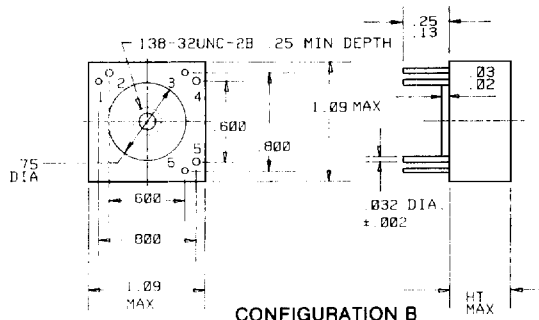
Type Designation
TF5S03ZZ-443
Thru 883

- * Designed to meet the requirements of: MIL-T-27/37 thru MIL-T-27/47
- * 308 standard designs from 1.5 VA thru 25 VA**, including a wide variety of output voltages offering maximum design flexibility.

Samples are available off-the-shelf by calling the sales department at (516) 928-0762. Modifications to these designs and virtually all **custom, high reliability designs** are available with **FAST** service by calling the **Engineering Hotline** at (516) 928-0771.



CONFIGURATION A



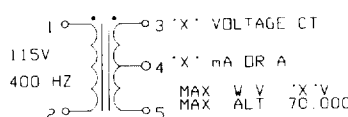
CONFIGURATION B

FIGURE 1. Dimensions and configuration.

TABLE 1.

POWER	HEIGHT MAX	TEMP. RISE ° C MAX	WEIGHT OZ. MAX	EFF. % MIN	NO LOAD I _{ma} rms MAX	REG. % MAX
1.5 VA NO SHIELD	0.47	17	0.85	70	1.5	23
1.5 VA WITH SHIELD	0.59	17	1.10	70	3.0	18
3 VA NO SHIELD	0.59	20	1.10	75	3.0	18
3 VA WITH SHIELD	0.78	20	1.65	75	6.0	12
6 VA NO SHIELD	0.78	25	1.65	81	6.0	12
6 VA WITH SHIELD	1.03	25	2.20	80	9.0	10
9 VA NO SHIELD	1.03	30	2.20	83	9.0	10

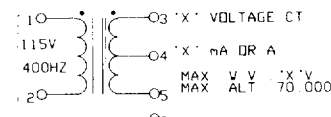
CIRCUIT DIAGRAM AND MARKING



(SEE TABLE 2 FOR VALUE OF "X")

SEE ORDER INFO

CIRCUIT DIAGRAM AND MARKING



(SEE TABLE 2 FOR VALUE OF "X")

NOTE: TERMINAL MARKED #6 FIG #1, WILL BE MARKED S FOR SHIELD ON ALL UNITS WITH A SHIELD.

NOTES:

- Dimensions are in inches.
- Metric equivalents are given for general information only.
- Tolerance on terminal position dimensions is $\pm .005$ (0.13 mm).
- Marking shall be on the side of the case.
- A white dot shall be marked on the side opposite the terminals, over terminal 1, in addition to the terminal marking shown.
- Secondary electrical values shall be marked as specified in table 2 as applicable.

INCHES	MM
.002	0.05
.02	0.5
.03	0.8
.032	0.81
.13	3.3
.138	3.51
.25	6.4
.600	25.24
.75	19.1
.78	19.8
.800	20.32
1.09	27.7

ELECTRICAL CHARACTERISTICS

ELECTRICAL RATINGS: see table 2.

PRIMARY VOLTAGE: 115 volts $\pm 10\%$, 400 HZ $\pm 5\%$.

NO LOAD: with 115 volts, 400 HZ across 1-2, the current in 1-2 shall not exceed, see table 1.

RATED LOAD: with 115 volts, 400 HZ across 1-2 and a resistive load with current as specified in table 2 in 3-5, the voltage across 3-5 shall be as specified in table 2.

EFFICIENCY: % minimum at rated load, see table 1.

POLARITY: additive with terminals 2 and 3 connected

PHASE SHIFT: 1.0 degree between primary and secondary voltage at rated load, maximum.

TEMPERATURE RISE: degrees C maximum, see table 1.

REGULATION: % max, see table 1.

DESIGN AND CONSTRUCTION

DIMENSIONS AND CONFIGURATION: see figure 1.

WEIGHT: OUNCE maximum, see table 1.

ALTITUDE: 70,000 feet, maximum.

OPERATING TEMPERATURE RANGE: -55 C to $+130$ C maximum.

TERMINALS: printed circuit, tinned.

DIELECTRIC WITHSTANDING VOLTAGE: 2.8 x the maximum working voltage specified in table 2.

** 16 VA and 25 VA INFORMATION AVAILABLE UPON REQUEST.

TABLE 2. ELECTRICAL RATINGS

DASH # MIL SPECIFICATION	SECONDARY VOLTAGES 3.5 V rms ± 3 %	SECONDARY CURRENT 3.5 amps rms				WORKING VOLTAGE V rms
		1.5 VA	3 VA	6 VA	9 VA	
						max
01 A OR B	6	0.250	0.500	1.100	1.500	325
02 A OR B	6.3	0.238	0.476	0.953	1.430	325
03 A OR B	7	0.214	0.429	0.857	1.286	325
04 A OR B	7.5	0.200	0.400	0.800	1.200	325
05 A OR B	8	0.188	0.375	0.750	1.125	325
06 A OR B	9	0.167	0.333	0.667	1.000	325
07 A OR B	10	0.150	0.300	0.600	0.900	325
08 A OR B	11	0.136	0.273	0.545	0.818	325
09 A OR B	12	0.125	0.250	0.500	0.750	325
10 A OR B	12.6	0.119	0.238	0.476	0.715	325
11 A OR B	13	0.115	0.231	0.462	0.692	325
12 A OR B	15	0.100	0.200	0.400	0.600	325
13 A OR B	16	0.094	0.188	0.375	0.563	325
14 A OR B	18	0.083	0.167	0.333	0.500	325
15 A OR B	20	0.075	0.150	0.300	0.450	325
16 A OR B	22	0.068	0.135	0.272	0.409	325
17 A OR B	24	0.063	0.125	0.250	0.375	325
18 A OR B	26	0.058	0.115	0.230	0.346	325
19 A OR B	28	0.053	0.107	0.214	0.321	325
20 A OR B	30	0.050	0.100	0.200	0.300	325
21 A OR B	33	0.045	0.091	0.182	0.273	325
22 A OR B	36	0.042	0.083	0.167	0.250	325
23 A OR B	39	0.038	0.077	0.154	0.231	325
24 A OR B	43	0.035	0.070	0.140	0.209	325
25 A OR B	47	0.032	0.064	0.128	0.191	325
26 A OR B	51	0.029	0.059	0.118	0.176	325
27 A OR B	56	0.027	0.054	0.107	0.161	325
28 A OR B	62	0.024	0.048	0.097	0.145	325
29 A OR B	68	0.022	0.044	0.088	0.132	325
30 A OR B	75	0.020	0.040	0.080	0.120	325
31 A OR B	82	0.018	0.037	0.073	0.110	325
32 A OR B	91	0.016	0.033	0.066	0.099	325
33 A OR B	100	0.015	0.030	0.060	0.090	325
34 A OR B	110	0.014	0.027	0.055	0.082	325
35 A OR B	115	0.013	0.026	0.052	0.078	325
36 A OR B	120	0.0125	0.025	0.050	0.075	325
37 A OR B	130	0.0115	0.023	0.046	0.069	325
38 A OR B	150	0.010	0.020	0.040	0.060	325
39 A OR B	180	0.0085	0.017	0.033	0.050	325
40 A OR B	200	0.0075	0.015	0.030	0.045	440
41 A OR B	220	0.007	0.014	0.027	0.041	440
42 A OR B	240	0.006	0.013	0.025	0.038	440
43 A OR B	270	0.0055	0.011	0.022	0.033	580
44 A OR B	300	0.005	0.010	0.020	0.030	580

TABLE 3.

DASH # MIL SPECIFICATION	TYPE DESIGNATION TF5503ZZ## *see note 4.									
	1.5 VA		3 VA		6 VA		9 VA			
	NO SHIELD	WITH SHIELD	NO SHIELD	WITH SHIELD	NO SHIELD	WITH SHIELD	NO SHIELD	WITH SHIELD		
01 A OR B	400	444	486	532	576	620	664			
02 A OR B	401	445	488	533	577	621	665			
03 A OR B	402	446	490	534	578	622	666			
04 A OR B	403	447	491	535	579	623	667			
05 A OR B	404	448	492	536	580	624	668			
06 A OR B	405	449	493	537	581	625	669			
07 A OR B	406	450	494	538	582	626	670			
08 A OR B	407	451	495	539	583	627	671			
09 A OR B	408	452	496	540	584	628	672			
10 A OR B	409	453	497	541	585	629	673			
11 A OR B	410	454	498	542	586	630	674			
12 A OR B	411	455	499	543	587	631	675			
13 A OR B	412	456	500	544	588	632	676			
14 A OR B	413	457	501	545	589	633	677			
15 A OR B	414	458	502	546	590	634	678			
16 A OR B	415	459	503	547	591	635	679			
17 A OR B	416	460	504	548	592	636	680			
18 A OR B	417	461	505	549	593	637	681			
19 A OR B	418	462	506	550	594	638	682			
20 A OR B	419	463	507	551	595	639	683			
21 A OR B	420	464	508	552	596	640	684			
22 A OR B	421	465	509	553	597	641	685			
23 A OR B	422	466	510	554	598	642	686			
24 A OR B	423	467	511	555	599	643	687			
25 A OR B	424	468	512	556	600	644	688			
26 A OR B	425	469	513	557	601	645	689			
27 A OR B	426	470	514	558	602	646	690			
28 A OR B	427	471	515	559	603	647	691			
29 A OR B	428	472	516	560	604	648	692			
30 A OR B	429	473	517	561	605	649	693			
31 A OR B	430	474	518	562	606	650	694			
32 A OR B	431	475	519	563	607	651	695			
33 A OR B	432	476	520	564	608	652	696			
34 A OR B	433	477	521	565	609	653	697			
35 A OR B	434	478	522	566	610	654	698			
36 A OR B	435	479	523	567	611	655	699			
37 A OR B	436	480	524	568	612	656	700			
38 A OR B	437	481	525	569	613	657	701			
39 A OR B	438	482	526	570	614	658	702			
40 A OR B	439	483	527	571	615	659	703			
41 A OR B	440	484	528	572	616	660	704			
42 A OR B	441	485	529	573	617	661	705			
43 A OR B	442	486	530	574	618	662	706			
44 A OR B	443	487	531	575	619	663	707			

ORDER INFORMATION.

CUSTOM DESIGNS AVAILABLE

* NOTES.

1. *** = SECONDARY OUTPUT VOLTAGE. SEE TABLE 2.
 EXAMPLE: 10537.6B = 1.5 VA UNIT NO SHIELD, 6 VRMS SECONDARY OUTPUT VOLTAGE WITH CONFIGURATION B PER FIGURE 1.
2. ## = DASH #. SEE TABLE 2
3. A OR B = CONFIGURATION. SEE FIGURE 1
4. TYPE DESIGNATION: TF5503ZZ##.
- EXAMPLE: TF5503XX400 = 1.5 VA UNIT WITH NO SHIELD AND DASH 01 SECONDARY OUTPUT VOLTAGE

POWER SIZE	TRANS AMERICAN PN *see note 1 & 3	SPEC. SHEET NO. *see note 2 & 3
1.5 VA NO SHIELD	10537-*** A OR B	M2737-## A OR B
1.5 VA WITH SHIELD	10538-*** A OR B	M2738-## A OR B
3 VA NO SHIELD	10539-*** A OR B	M2739-## A OR B
3 VA WITH SHIELD	10540-*** A OR B	M2740-## A OR B
6 VA NO SHIELD	10541-*** A OR B	M2741-## A OR B
6 VA WITH SHIELD	10542-*** A OR B	M2742-## A OR B
9 VA NO SHIELD	10543-*** A OR B	M2743-## A OR B

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