

### SP- 21

#### Description:

Triad's high reliability audio transformers provide the durability and precision required in today's demanding designs. These transformers are available for a wide variety of applications.

#### Electrical Specifications (@25C)

Power level (mW)	Matching Impedance		Max. Ma DC Unbalance in Primary	DC Resistance ( $\Omega$ )		Overall Turns Ratio
	Primary	Secondary		Primary	Secondary	
50	10,000 CT	2,000 CT	1.0	1,050.0	330.0	2.24:1.0

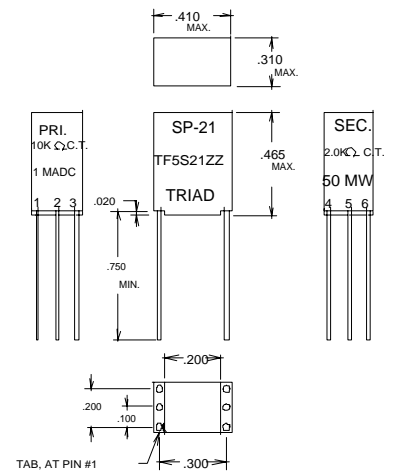
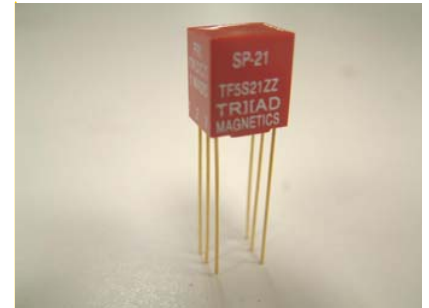
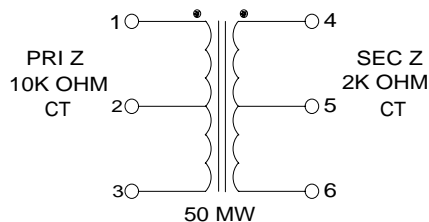
**Frequency Response:**  $\pm 2.0$  DB, at 300 Hz to 100K Hz

**Pri-Sec Hipot test (Pri-Sec):** 1,000 VRMS for 1 sec.

**Working voltage:** 150VDC

#### Construction:

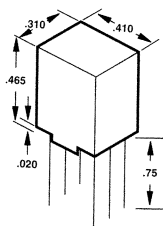
Plug-in terminals are precision spaced to provide fixed mounting centers. Epoxy molded case includes a .020" recess for ease of solder inspection. Leads are made of high strength Nickel alloy, gold plated and are .020" in diameter.



**RoHS Compliance:** As of manufacturing date February 2005, all standard products meet the requirements of 2002/95/EC, known as the RoHS initiative.

# Audio Transformers

## MIL-T-27E



**Red Spec  
(MIL-T-27E)**

### :: Description

Triad high reliability audio transformers provide the durability and precision required in today's demanding designs. These transformers are available for a wide variety of applications. The line of Red Spec audio transformers is designed and constructed to meet the rigid requirements of MIL-T-27E. These transformers feature an epoxy molded case, gold plated leads and exceptional operation from 300 Hz to 100 kHz.

### :: Specifications

**Frequency Response Ranges:** 300 Hz to 100 kHz

### :: Red Spec Printed Circuit Audio Transformers

Section	Type No.	Mil Type No.	Power Level in mW	Matching Impedance		Max. Ma DC Unbalanced in Primary	DC Resistance		Overall Turns Ratio	Figure No.
				Primary	Secondary		Primary	Secondary		
A	SP-4	TF5S21ZZ	10	200,000 CT	1,000 CT	0.0	5,300.0	100.0	14.1:1.0	3
B	SP-5	TF5S21ZZ	25	50,000 CT	1,000 CT	0.0	3,800.0	75.0	7.1:1.0	3
C	SP-13	TF5S21ZZ	40	25,000 CT/20,000 CT	1,000/800 CT	0.5	1,700.0	115.0	5.0:1.0	3
D	SP-20	TF5S21ZZ	50	10,000 CT	1,200 CT	1.0	1,050.0	200.0	2.88:1.0	3
	SP-21	TF5S21ZZ	50	10,000 CT	2,000 CT	1.0	1,050.0	330.0	2.24:1.0	3
	SP-22	TF5S21ZZ	50	10,000	2,000 CT/500§	1.0	1,050.0	146.0/168.0§	4.48:1.0:1.0	4
	SP-29	TF5S21ZZ	50	10,000 CT	500 CT	1.0	1,050.0	80.0	4.47:1.0	3
	SP-33	TF5S21ZZ	50	1,000	50	3.0	145.0	8.0	4.4:1.0	1
	SP-42	TF5S21ZZ	50	150 CT	12	10.0	18.0	2.7	3.54:1.0	2
	SP-48	TF5S21ZZ	50	7,500 CT	12	1.0	796.0	2.9	25.0:1.0	2
	SP-49	TF5S21ZZ	50	300 CT	600	7.0	41.0	98.0	1.0:1.42	2
	SP-50	TF5S21ZZ	50	500 CT	600	3.0	67.0	98.0	1.0:1.1	2
	SP-51	TF5S21ZZ	50	900 CT	600	4.0	104.0	96.0	1.22:1.0	2
	SP-52	TF5S21ZZ	50	1,500 CT	600	3.0	168.0	92.0	1.58:1.0	2
	SP-66	TF5S21ZZ	50	10,000 CT	10,000 CT	1.0	1,000.0	1,300.0	1.0:1.0	3
	SP-67	TF5S21ZZ	50	600 CT	600 CT	3.0	72.0	92.0	1.0:1.0	3
SP-68	TF5S21ZZ	50	10,000	10,000 CT/2,500§	1.0	1,000.0	565.0/650.0§	2.1:1.0	4	
SP-69	TF5S21ZZ	50	600	600 CT/150§	3.0	72.0	40.0/45.0§	2.0:1.0:1.0	4	
SP-70	TF5S21ZZ	50	600	600	3.0	72.0	92.0	1.0:1.0	1	
E	SP-128	TF5S21ZZ	•	0.1H	•	5.0	15.0	•	•	5
	SP-310	Shield Only								

CT = Center Tap § Split secondary

### :: Outline Dimensions

#### Technical Notes

1. Plug-in terminals are precision spaced to provide fixed mounting centers.
2. Red Spec transformers are hi-pot tested at 1,000 VRMS.
3. 150 VDC working voltage.
4. Red Spec transformers feature small footprint base dimensions of .310 by .410 inch.
5. Pin diameter = .020 inch.

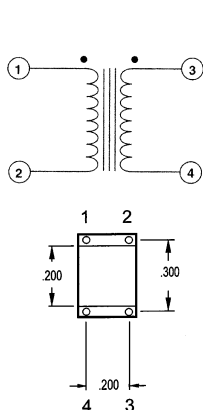


Figure 1

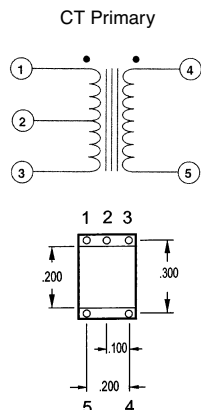


Figure 2

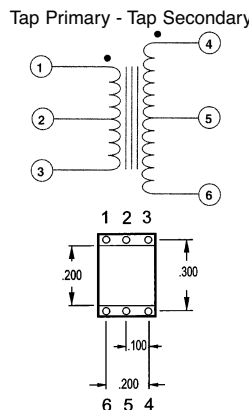


Figure 3

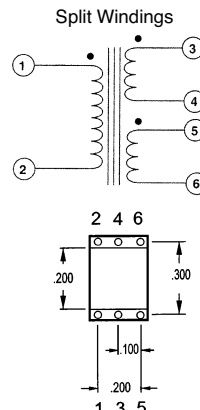


Figure 4

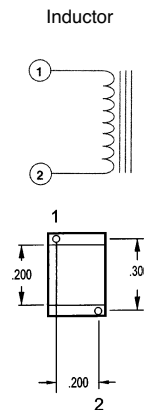


Figure 5