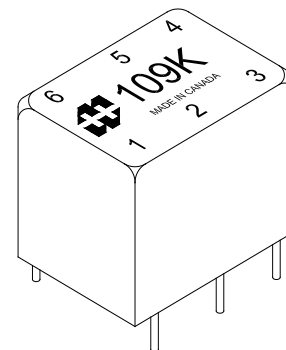


## 109K

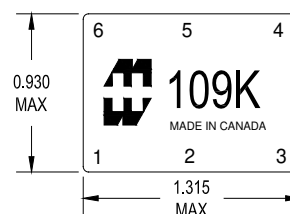
### MINIATURE EPOXY POTTED AUDIO TRANSFORMER

- Audio input, line matching and output transformers
- Epoxy potted in an attractive molded case, Pin type, P.C. board mount, (min. 0.187" length)
- Rugged epoxy potted construction produces a completely sealed unit withstanding severe environmental conditions.
- In some models where no center tap is present (on the secondary), pin 5 is omitted.
- Secondary may be used as primary and primary as secondary.
- Will withstand soldering for 10 sec. @ 260 degrees C. ambient temp. 85 degrees C max.



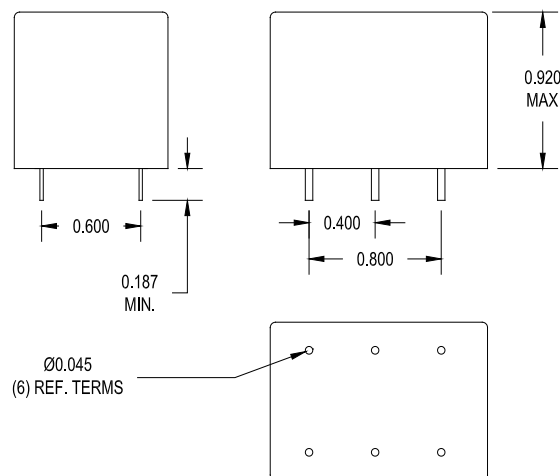
Power level: 2.0W @ 300 Hz. to 50 KHz.

- Freq. range @ +0 dbm is 300 Hz. to 50 KHz. +/- 1.5db
- Freq. range @ +10 dbm is 300 Hz. to 50 KHz. +/- 1.5db
- Freq. range @ +27 dbm is 300 Hz. to 50 KHz. +/- 1.5db
- Freq. measurements with no D.C. saturation.

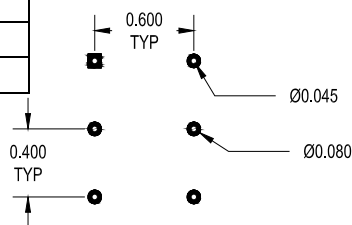


### ELECTRICAL SPECIFICATIONS

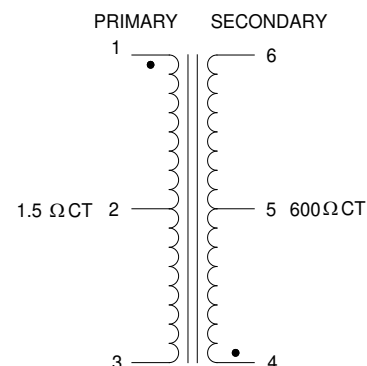
Characteristic	Typical
Input Impedance	1.5K $\Omega$ CT
Output Impedance	600 $\Omega$ CT
Output Power	2 Watts
DCR	
Primary 1-3	102 $\Omega$ (51 $\Omega$ /51 $\Omega$ )
Secondary 4-6	60 $\Omega$ (30 $\Omega$ /30 $\Omega$ )
Inductance @ 1.0 kHz, 1.0 V OC	
Primary	2.436 H
Secondary	1.011 H
Leakage Inductance	6.68 mH
Impedance @ 1.0 kHz, 1.0 V OC	
Primary	16.81 K $\Omega$
Secondary	7.021 K $\Omega$
Frequency Response	$\pm$ 1.5db from 300Hz to 50KHz
Unbalanced DC	6mA Max.
Turns ratio	1.58:1
Dielectric Strength	100 Vrms
Temperature Range	-40 To 105°C**



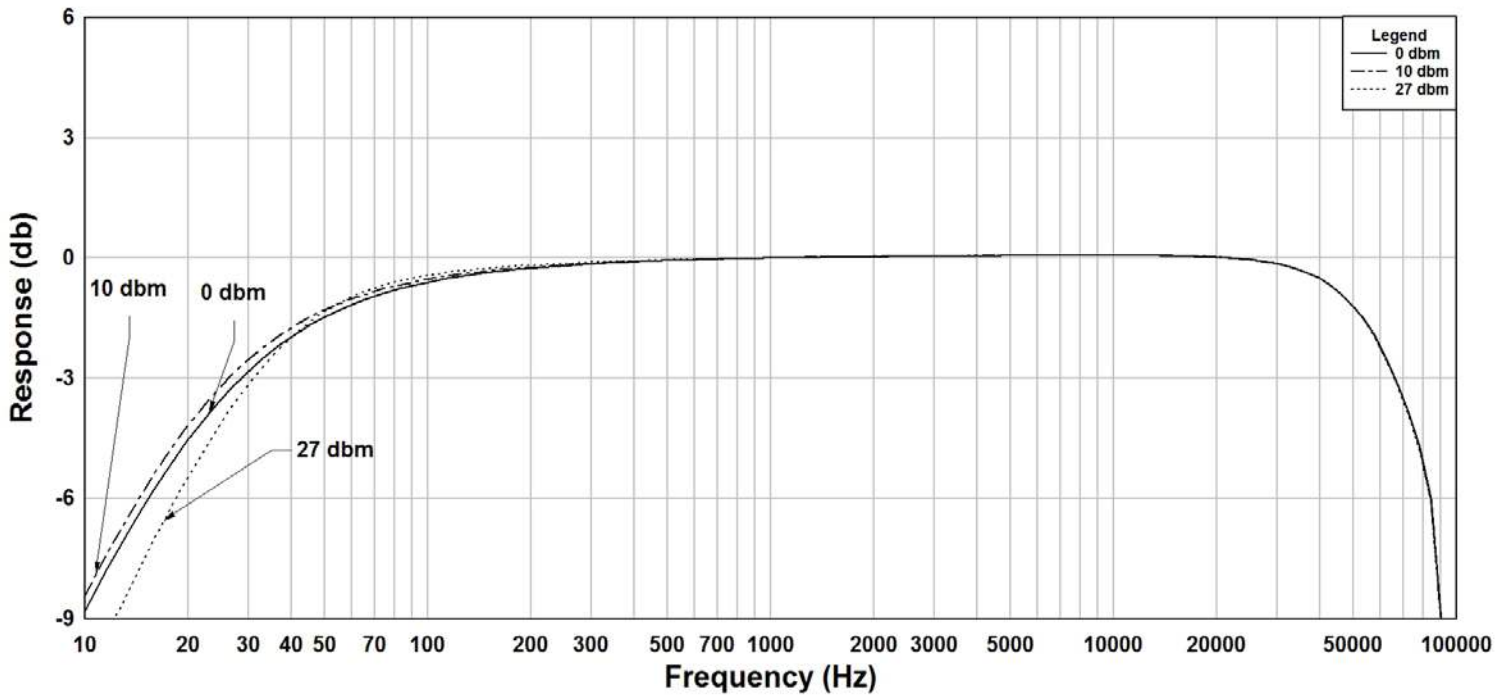
#### PCB LAYOUT



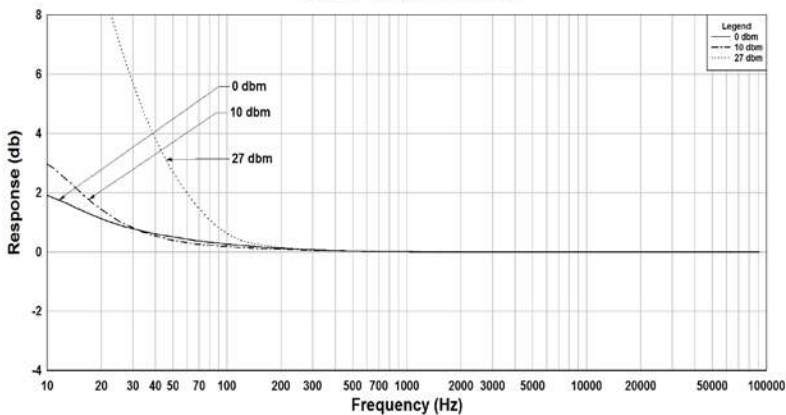
#### SCHEMATIC DIAGRAM



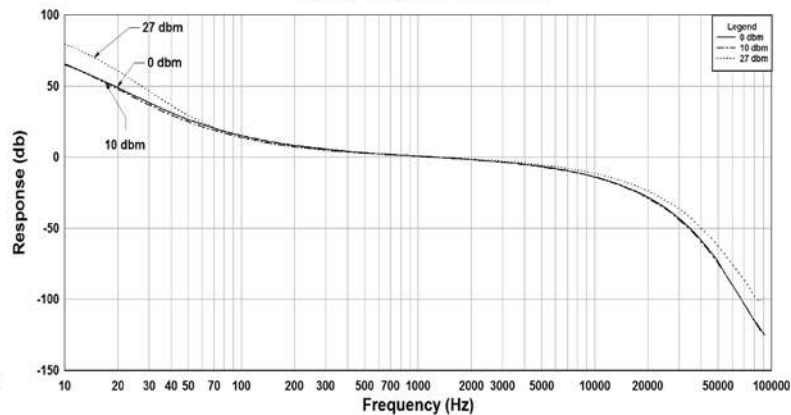
## 109K Rs=1500, RI=600 Frequency Response



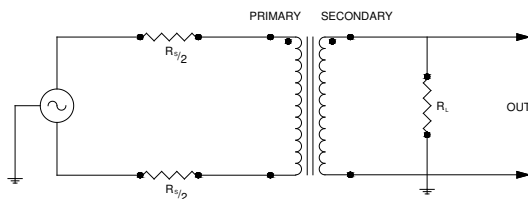
109K Rs=1500, RI=600 THD+N



109K Rs=1500, RI=600 Phase Shift



### TYPICAL TEST CIRCUIT



Measurement instruments  
 Hp4192a impedance analyzer  
 Hp3456a DVM  
 Keithley 2002 DVM  
 D scope series iii audio analyzer

\*\*The epoxy that is used to cast these parts has a workable temperature range of  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$   
 Under a normal rate of change, this does not include thermal shock.  
 Variations in the transformer materials and environmental conditions may reduce the workable temperature range.

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