

# 108J

## 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.

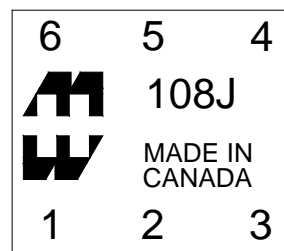
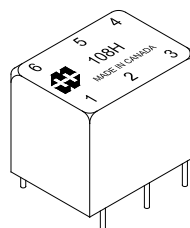
Power level: 150mw @ 300 Hz. to 50 Khz.

-Freq. range @ +0 dbm is 300 Hz. to 50 Khz. +/- 1.5db

-Freq. range @ +10 dbm is 300 Hz. to 50 Khz. +/- 1.5db

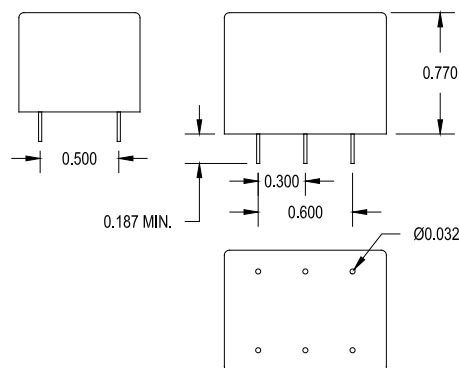
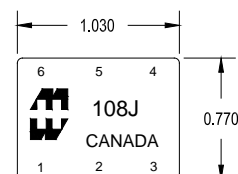
-Freq. range @ +20 dbm is 300 Hz. to 50 Khz. +/- 1.5db

-Freq. measurements with no D.C. saturation.

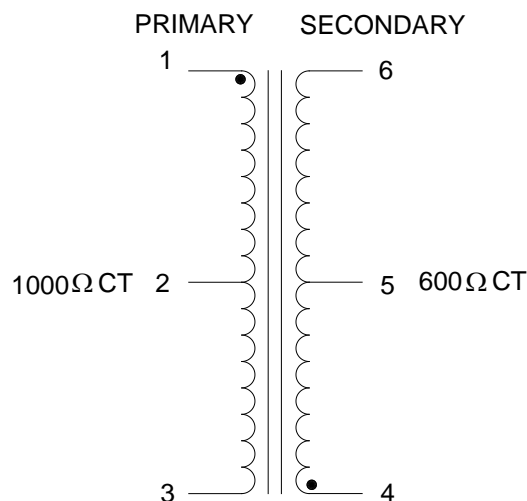


## ELECTRICAL SPECIFICATIONS

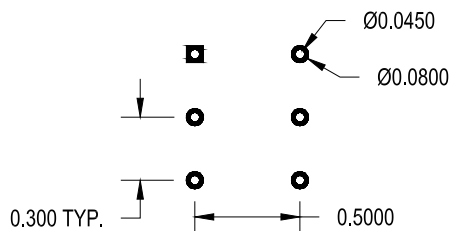
Characteristic	Typical
Input Impedance	1000 $\Omega$ CT
Output Impedance	600 $\Omega$ CT
Output Power	0.500 Watts
DCR	
Primary 1-3	88 $\Omega$ (44 $\Omega$ /44 $\Omega$ )
Secondary 4-6	66 $\Omega$ (33 $\Omega$ /33 $\Omega$ )
Inductance	@ 1.0 kHz, 1.0 V OC
Primary	1.95 H
Secondary	1.12 H
Leakage Inductance	3.67 mH
Impedance	@ 1.0 kHz, 1.0 V OC
Primary	18.8 K $\Omega$
Secondary	11.4 K $\Omega$
Frequency Response	$\pm 1.5$ db from 300Hz to 50KHz
Unbalanced DC	4.5mA Max.
Turns ratio	1.29:1
Dielectric Strength	100 Vrms
Temperature Range	-40 To 105°C**



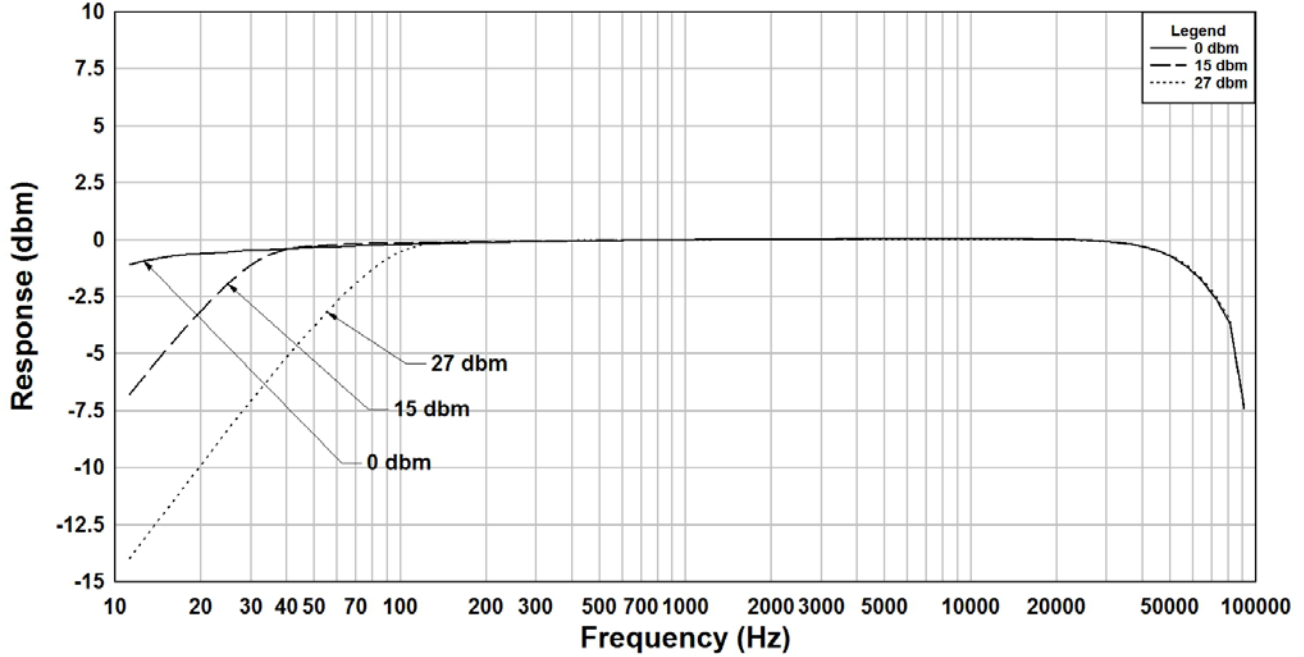
## SCHEMATIC DIAGRAM



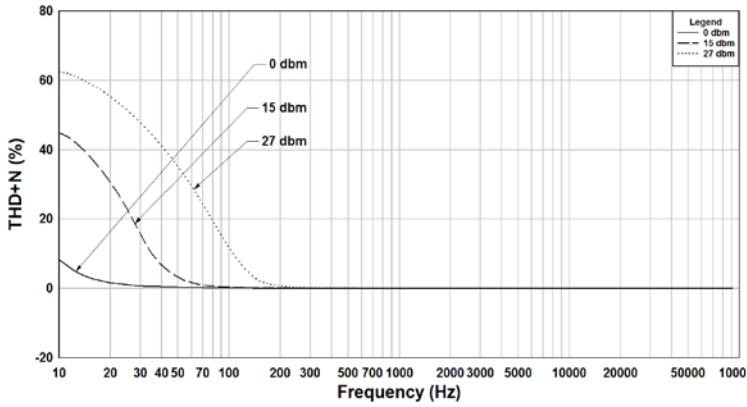
## PCB LAYOUT



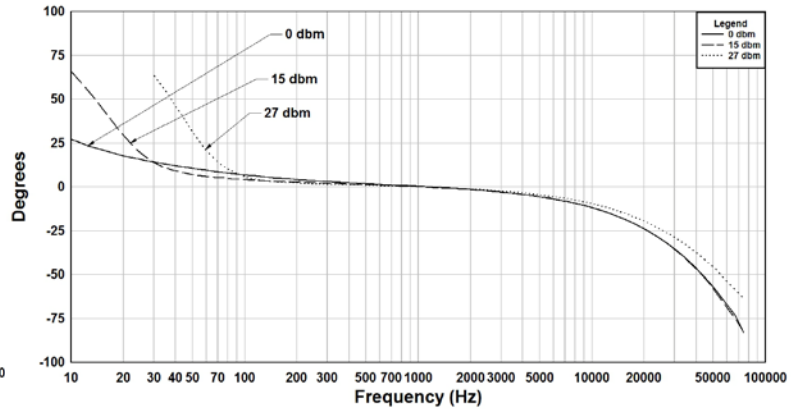
## 108J Rs=1000, RI=600 Frequency Response



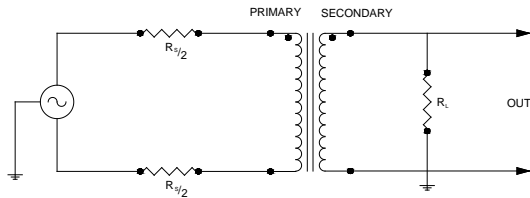
### 108J Rs=1000, RI=600 THD+N



### 108J Rs=1000, 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.

This drawing and the information in it is the property of Hammond Manufacturing. It may not be reproduced, transmitted or used in any manner whatsoever without the written permission of Hammond Manufacturing. Data subject to change without notice.