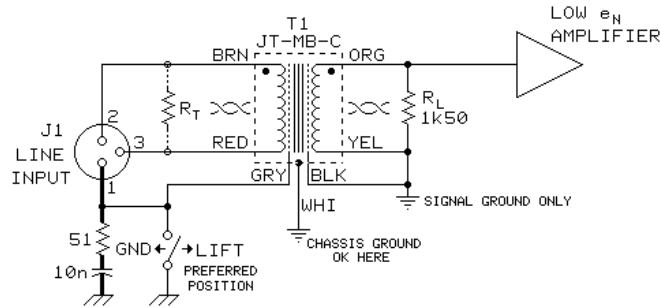


# JT-MB-C IN LOW NOISE, HIGH ISOLATION LINE RECEIVER FOR LO-Z SOURCES



THE JT-MB-C IS A 1:1 TRANSFORMER DESIGNED FOR VERY HIGH COMMON-MODE REJECTION (130 dB IS TYPICAL @ 60 Hz). ITS BANDWIDTH EXTENDS FROM 1.5 Hz TO 100 kHz, MAKING IT SUITABLE FOR MANY INDUSTRIAL APPLICATIONS AS WELL AS HIGH QUALITY AUDIO. IT REQUIRES THE SECONDARY LOAD,  $R_L$  SHOWN ABOVE, FOR PROPER DAMPING AND TRANSIENT RESPONSE. THIS MAKES THE INPUT IMPEDANCE ABOUT 1.6 k $\Omega$ , WHICH IS SUITABLE FOR SOURCE IMPEDANCES UP TO ABOUT 200  $\Omega$  WITH MINIMAL LOADING LOSSES.  $R_T$  MAY BE ADDED IF LINE TERMINATION IS REQUIRED. THE AMPLIFIER SHOULD BE OPTIMIZED FOR LOWEST NOISE FROM A 100  $\Omega$  TO 300  $\Omega$  SOURCE IMPEDANCE.

## NOTES

1.  $R_T$  IS OPTIONAL LINE TERMINATION RESISTOR, TYPICALLY 50  $\Omega$  TO 150  $\Omega$
2. ALL RESISTORS ARE  $\pm 1\%$  1/4w METAL FILM TYPES, ROEDERSTEIN MK2-1 OR EQUIVALENT VALUES IN OHMS (1k50 = 1.50k)
3. SEPARATELY TWIST T1 PRIMARY AND SECONDARY LEADS (SHOWN AS  $\infty$ ) TO MINIMIZE ELECTROMAGNETIC PICKUP

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