NEL CRYSTAL CLOCK OSCILLATORS

THERMAL ANALYSIS
SJ/HJ-XXXX Series

Thermal measurements were made on an HJ-100 oscillator. IC size was 0.050" X 0.050". Areas measured were the top of the substrate, bottom of the package, and the IC. The results are as follows:

Ambient Air = 24.2°C
Package Temperature = 26.2°C
Substrate Temperature = 26.7°C
IC Temperature = 27.2°C
Power Dissipation = 76.6 mwatts

Based on these measurements, the following thermal resistances were calculated:

Package to Air ⌀ = 26.11°C/watt
IC to Substrate ⌀ = 6.53°C/watt
Package to Substrate ⌀ = 6.53°C/watt
IC to Package ⌀ = 13.05°C/watt
IC to Air ⌀ = 39.16°C/watt

Air is defined to be free uncontrolled air.

NEL Frequency Controls, Inc. 357 Beloit Street, P.O. Box 457, Burlington, WI 53105-0457 U.S.A. Phone 262/763-3591 FAX 262/763-2881