

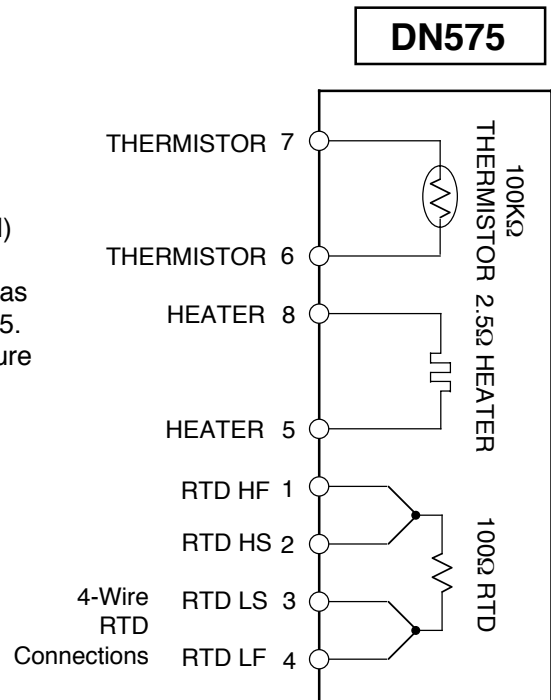
## DATA SHEET

### RESISTIVE HEATER ON AN ALUMINUM NITRIDE SUBSTRATE

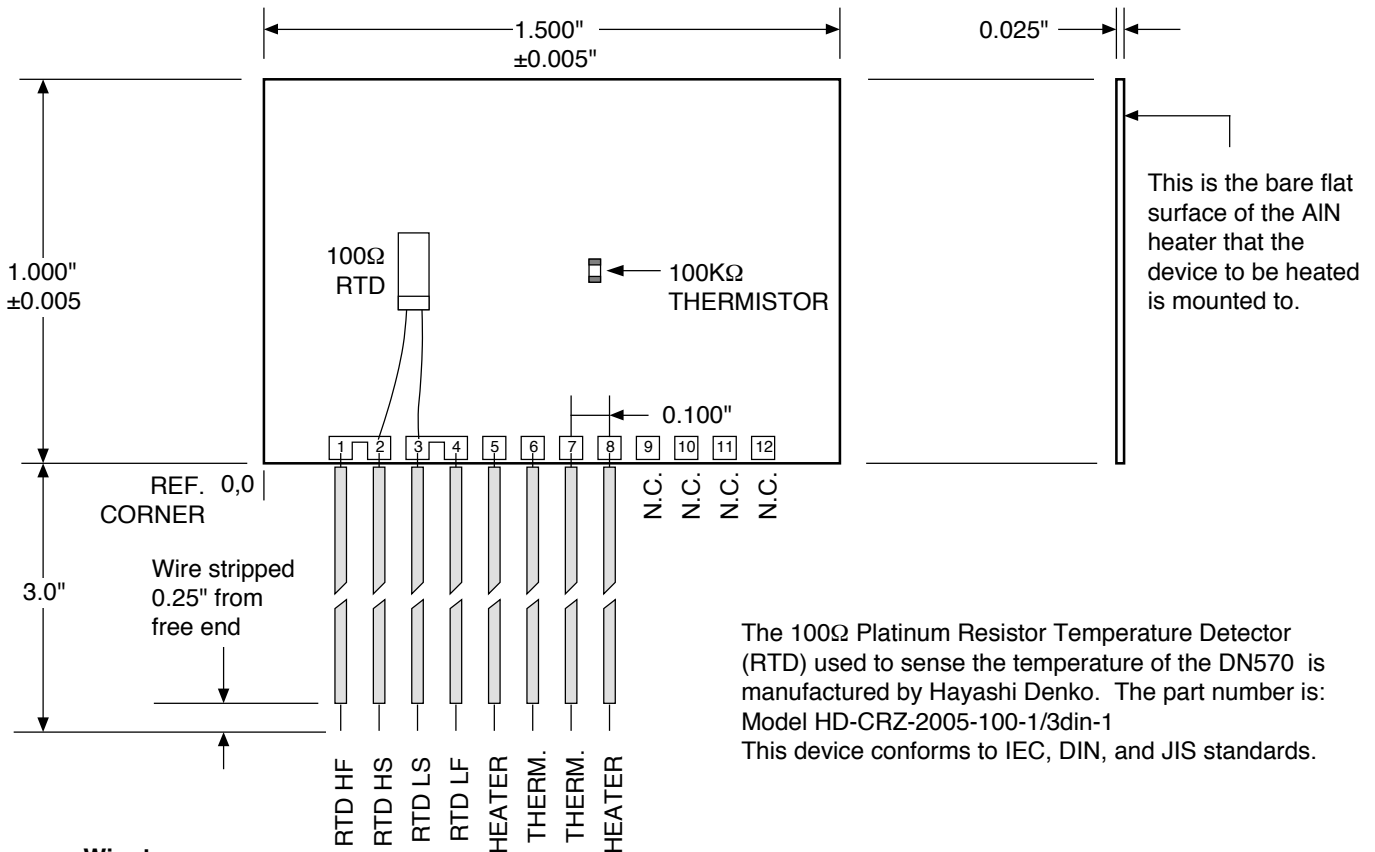
The DN575 is 2.5Ω heater on a 1.5" X 1.0" Aluminum Nitride (AlN) substrate. The heater contains a 100kΩ thermistor to provide temperature feedback for an external temperature controller such as the DN1225. A 100Ω platinum RTD is also mounted on the DN575. This RTD can also be used as the feedback element for temperature control or for monitoring the temperature of the heater.

#### FEATURES

- AlN BASE FOR GOOD THERMAL CONDUCTION
- OPERATION FROM AMBIENT TO 150°C
- POWER UP TO 15 WATTS
- ELECTRICALLY ISOLATED FROM THE SUBSTRATE



### MECHANICAL DRAWING



The 100Ω Platinum Resistor Temperature Detector (RTD) used to sense the temperature of the DN570 is manufactured by Hayashi Denko. The part number is: Model HD-CRZ-2005-100-1/3din-1. This device conforms to IEC, DIN, and JIS standards.

#### Wire type

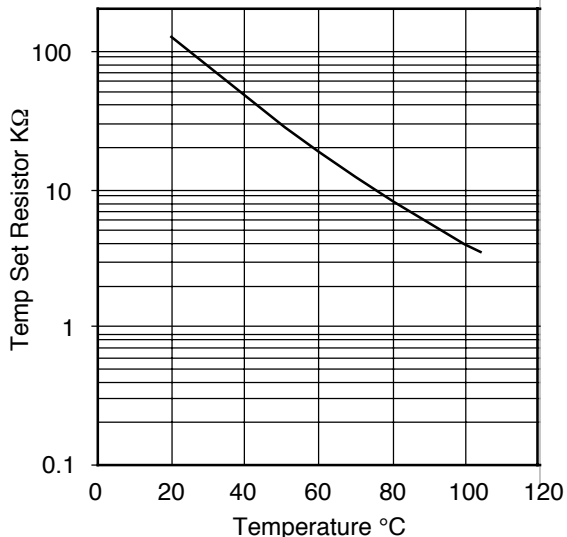
Number 32 gage solid insulated magnet wire is used for the eight wires to make the electrical connections to the DN575 temperature controlled heater.

The wires are attached to the heater with SN96 Solder. This solder is 96% Tin and 4 % Silver.

**Thermistor Resistance vs. Temperature**

TEMP °C	RS KΩ	TEMP °C	RS KΩ
20	130.2	65	15.3
25	100.0	70	12.4
30	77.3	75	10.2
35	60.2	80	8.3
40	47.2	85	6.9
45	37.2	90	5.7
50	29.6	95	4.7
55	23.6	100	4.0
60	19.0	105	3.3

**Thermistor Resistance vs. Temperature**



**HEATER SPECIFICATIONS**

Heater Resistance  $R_H = 2.5\Omega \pm 10\%$  at 25°C  
 Maximum Operating Temperature -----150°C  
 Maximum Power -----20 Watts

**TEMPERATURE CONTROLLED DN575 WITH THE DN1225 TEMPERATURE CONTROLLER**

