



# NTC THERMISTORS: TYPE NHQT

## SURFACE MOUNT CHIP 0402 SIZE

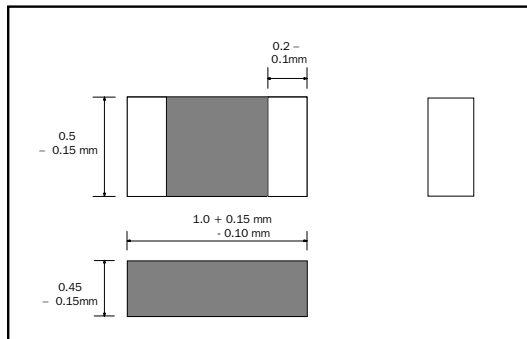
### DESCRIPTION:

A range of 0402 size surface mount NTC chip thermistors.

### FEATURES:

- Palladium silver electrodes with nickel barrier and solder plating
- Intended for temperature measurement, control and compensation
- Excellent solderability without 'tombstoning'
- Suitable for standard soldering techniques
- Glass-coated ceramic between electrodes for improved stability

### DIMENSIONS:



### DATA:

#### Soldering Recommendations:

Maximum storage time in closed package....1 year  
 Maximum storage time exposed to ambient conditions of 15°C - 30°C, 15% - 70% RH ...30 days  
 Drying prior to soldering: not to exceed 48h at 80°C ..... or 16h at 100°C ..... or 8h at 125°C  
 Flux type ..... R or RMA

#### Flow soldering conditions:

Preheat temperature ..... 80° - 150°C  
 Max rate of change of temperature ..... 2.5°C/s  
 Max solder temperature ..... 265°C  
 Max dwell time ..... 10s  
 Cooling in ambient or air flow of ..... 5m/s

#### Reflow soldering conditions:

Method ..... infrared, hot gas, vapor  
 Max rate of change preheat temperature . 2.5°C/s  
 Max Temp ..... 225°C  
 Max time above 200°C ..... 30s  
 Max radiant flux (0. 1 to 100W μ) ..... 5W/cm<sup>2</sup>  
 Max hot air temperature ..... 275°C at 4 m/s  
 Max vapor temperature ..... 215°C  
 Max rate of cooling..... 2.5°C/s

#### Cleaning:

Ultrasonic cleaning in methanol or isopropanol not exceeding 40 kHz for 5 minutes or aqueous cleaning not exceeding 70°C for 7 minutes, is recommended.

Code	R25 Ω	B 25/85 K
NHQT400B285R5	40	2850
NHQT500B285R5	50	2850
NHQT600B285R5	60	2850
NHQT101B285R5	100	2850
NHQT151B285R5	150	2850
NHQT102B330R5	1000	3300
NHQT202B410R5	2000	4100
NHQT252B410R5	2500	4100
NHQT302B410R5	3000	4100
NHQT332B410R5	3300	4100
NHQT352B410R5	3500	4100
NHQT402B410R5	4000	4100
NHQT652B410R5	6500	4100
NHQT153B380R5	15000	3800
NHQT203B380R5	20000	3800
NHQT223B380R5	22000	3800
NHQT303B400R5	30000	4000
NHQT473B400R5	47000	4000
NHQT683B400R5	68000	4000
NHQT104B425R5	100000	4250
NHQT154B425R5	150000	4250
NHQT204B425R5	200000	4250

Resistance tolerance at 25°C ..... ± 5%  
 ..... (for ± 10% replace R5 by R10 in code)  
 Tolerance on B value ..... ±200 K  
 Minimum temperature ..... -40°C  
 Maximum temperature ..... 125°C  
 Dissipation factor ..... 1.5mW/K  
 Time constant ..... 4s max

D-NHQT-1

Crown Industrial Estate, Priorswood Road  
 Taunton, Somerset TA2 8QY UK  
 Tel +44 (0) 1823 335200  
 Fax +44 (0) 1823 332637

808 US Highway 1  
 Edison, New Jersey 08817-4695 USA  
 Tel +1 (732) 287 2870  
 Fax +1 (732) 287 8847

967 Windfall Road  
 St. Marys, Pennsylvania 15857-3397 USA  
 Tel +1 (814) 834 9140  
 Fax +1 (814) 781 7969