



# PTC THERMISTORS: TYPE YQ – RoHS Compliant

## WIRED DISC

### DESCRIPTION:

A range of radially-wired PTC disc thermistors with green silicone resin coating

### FEATURES:

- Designed for general purpose over-current, over-voltage and direct over-temperature protection
- Wide range of operating current & voltage levels
- Excellent stability
- Fail-safe operation
- Solid state
- High performance barium titanate ceramic
- Suitable for automatic PCB insertion

### PACKAGING:

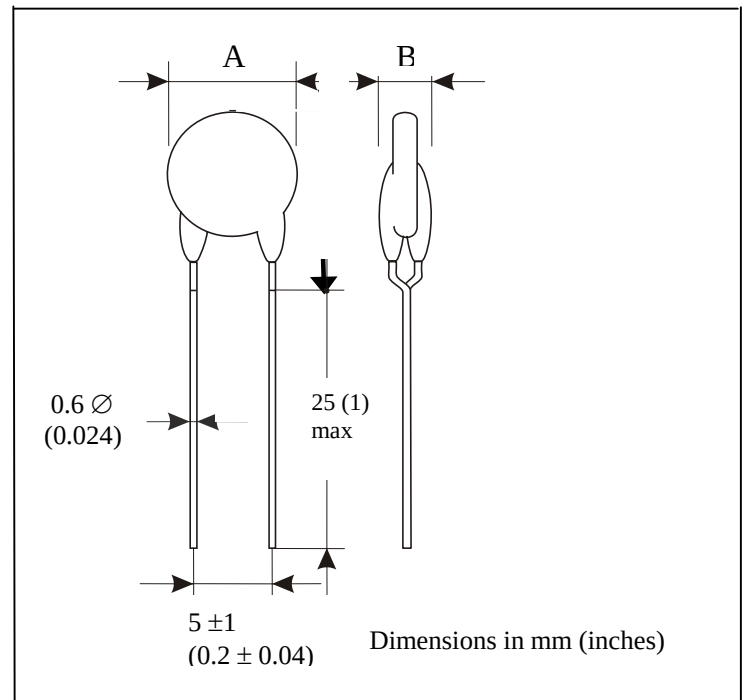
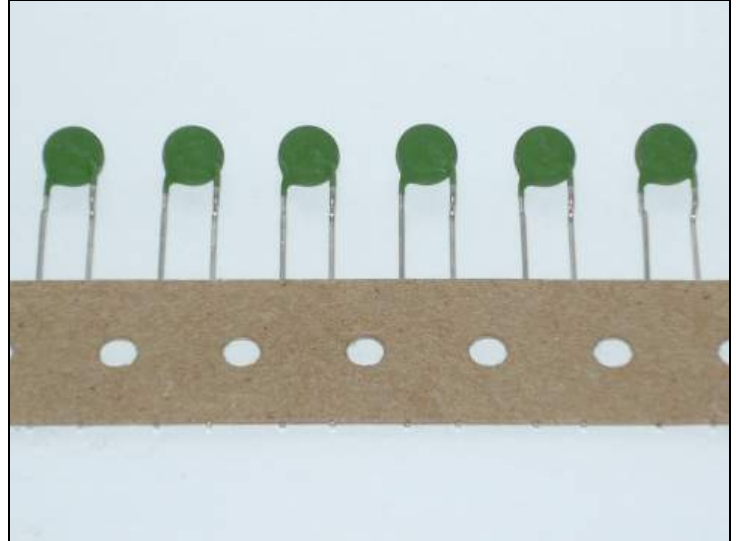
All types in the YQ range are available loose-packed, as shown in the drawing. Devices are also available on bandolier (tape & reel): types with diameter A < 12mm comply with IEC 286-2.

To identify tape & reel packaging required, replace N in the product codes shown in the table overleaf as follows:

Bandoliered ..... T  
Loose-packed ..... N

Pack quantities:

Bandoliered ..... 375 - 1500/reel  
Loose packed ..... 500 - 2500/box



### DATA:

Tolerance on R<sub>25</sub> ..... ±25%

Ambient temperature range:

at maximum voltage ..... 0 to +60°C

at zero voltage ..... -25 to +125°C

Lead wire material ..... Tin-coated copper

Body coating ..... Green Silicone resin

Data Sheet: YQ-1

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## WIRED DISC

| Group                                                                           | Code        | R25 ( $\Omega$ ) | Int (A) | It (A) | Imo (A) | A max |      | B max |      |
|---------------------------------------------------------------------------------|-------------|------------------|---------|--------|---------|-------|------|-------|------|
|                                                                                 |             |                  |         |        |         | mm    | inch | mm    | inch |
| $V_{\max} = 265V_{\text{rms}}$<br>$T_b = 120^\circ\text{C}$                     | YQD120N0006 | 6                | 0.39    | 0.78   | 3.1     | 17.5  | 0.69 | 5     | 0.2  |
|                                                                                 | YQD120N0010 | 10               | 0.25    | 0.5    | 1.8     | 13.5  | 0.53 | 5     | 0.2  |
|                                                                                 | YQD120N0015 | 15               | 0.18    | 0.35   | 1.2     | 11    | 0.43 | 5     | 0.2  |
|                                                                                 | YQD120N0025 | 25               | 0.13    | 0.25   | 0.8     | 9     | 0.35 | 5     | 0.2  |
|                                                                                 | YQD120N0045 | 45               | 0.105   | 0.2    | 0.8     | 9     | 0.35 | 5     | 0.2  |
|                                                                                 | YQD120N0055 | 55               | 0.09    | 0.18   | 0.8     | 9     | 0.35 | 5     | 0.2  |
|                                                                                 | YQD120N0070 | 70               | 0.065   | 0.13   | 0.3     | 6.5   | 0.26 | 5     | 0.2  |
|                                                                                 | YQD120N0120 | 120              | 0.035   | 0.08   | 0.3     | 6.5   | 0.26 | 5     | 0.2  |
| $V_{\max} = 265V_{\text{rms}}$<br>$T_b = 100^\circ\text{C}$                     | YQD100N0150 | 150              | 0.038   | 0.08   | 0.3     | 6.5   | 0.26 | 5     | 0.2  |
|                                                                                 | YQD100N0300 | 300              | 0.027   | 0.055  | 0.3     | 6.5   | 0.26 | 5     | 0.2  |
|                                                                                 | YQD100N0600 | 600              | 0.02    | 0.04   | 0.2     | 6.5   | 0.26 | 5     | 0.2  |
|                                                                                 | YQD100N1000 | 1000             | 0.015   | 0.03   | 0.2     | 6.5   | 0.26 | 5     | 0.2  |
| $V_{\max} = 265V_{\text{rms}}$<br>$T_b = 80^\circ\text{C}$                      | YQD080N0025 | 25               | 0.085   | 0.17   | 0.8     | 9     | 0.35 | 5     | 0.2  |
|                                                                                 | YQD080N0050 | 50               | 0.06    | 0.12   | 1       | 9     | 0.35 | 5     | 0.2  |
|                                                                                 | YQD080N0100 | 100              | 0.05    | 0.1    | 0.6     | 8     | 0.32 | 5     | 0.2  |
|                                                                                 | YQD080N0150 | 150              | 0.022   | 0.045  | 0.2     | 4.5   | 0.18 | 5     | 0.2  |
| $V_{\max} = 140V_{\text{rms}}$<br>$T_b = 120^\circ\text{C}$                     | YQC120N4.70 | 4.7              | 0.425   | 0.85   | 3.1     | 17.5  | 0.69 | 5     | 0.2  |
|                                                                                 | YQC120N5.60 | 5.6              | 0.4     | 0.8    | 3.1     | 17.5  | 0.69 | 5     | 0.2  |
|                                                                                 | YQC120N6.80 | 6.8              | 0.3     | 0.6    | 1.8     | 13.5  | 0.53 | 5     | 0.2  |
|                                                                                 | YQC120N0010 | 10               | 0.225   | 0.45   | 1.2     | 11    | 0.43 | 5     | 0.2  |
|                                                                                 | YQC120N0022 | 22               | 0.135   | 0.27   | 0.8     | 9     | 0.35 | 5     | 0.2  |
|                                                                                 | YQC120N0033 | 33               | 0.09    | 0.175  | 0.3     | 6.5   | 0.26 | 5     | 0.2  |
| $V_{\max} = 80V_{\text{dc}}$<br>$60V_{\text{rms}}$<br>$T_b = 120^\circ\text{C}$ | YQB120N2.30 | 2.3              | 0.55    | 1.1    | 8       | 17.5  | 0.69 | 4     | 0.16 |
|                                                                                 | YQB120N3.70 | 3.7              | 0.38    | 0.75   | 5.5     | 13.5  | 0.53 | 4     | 0.16 |
|                                                                                 | YQB120N5.60 | 5.6              | 0.3     | 0.6    | 4.3     | 11    | 0.43 | 4     | 0.16 |
|                                                                                 | YQB120N9.40 | 9.4              | 0.18    | 0.36   | 3       | 9     | 0.35 | 4     | 0.16 |
|                                                                                 | YQB120N0025 | 25               | 0.1     | 0.2    | 1       | 6.5   | 0.26 | 4     | 0.16 |
|                                                                                 | YQB120N0055 | 55               | 0.06    | 0.12   | 0.7     | 4.0   | 0.16 | 3.5   | 0.14 |
| $V_{\max} = 30V_{\text{rms}}$<br>$T_b = 120^\circ\text{C}$                      | YQA120N1.20 | 1.2              | 0.75    | 1.5    | 5.5     | 13.5  | 0.53 | 4     | 0.16 |
|                                                                                 | YQA120N1.8L | 1.8              | 0.5     | 1      | 5.5     | 13.5  | 0.53 | 4     | 0.16 |
|                                                                                 | YQA120N1.80 | 1.8              | 0.55    | 1      | 3       | 9     | 0.35 | 4     | 0.16 |
|                                                                                 | YQA120N4.2  | 4.2              | 0.28    | 0.56   | 3       | 9     | 0.35 | 4     | 0.16 |
|                                                                                 | YQA120N0010 | 10               | 0.17    | 0.34   | 1       | 6.5   | 0.26 | 4     | 0.16 |
| $V_{\max} = 18V_{\text{rms}}$<br>$T_b = 120^\circ\text{C}$                      | YQZ120N1.00 | 1                | 0.65    | 1.2    | 3       | 9     | 0.35 | 4     | 0.16 |
|                                                                                 | YQZ120N1.20 | 1.2              | 0.7     | 1.4    | 4.3     | 11    | 0.43 | 4     | 0.16 |
|                                                                                 | YQZ120N1.80 | 1.8              | 0.55    | 1      | 3       | 9     | 0.35 | 4     | 0.16 |
|                                                                                 | YQZ120N4.60 | 4.6              | 0.3     | 0.58   | 1       | 6.5   | 0.26 | 4     | 0.16 |
|                                                                                 | YQZ120N0013 | 13               | 0.14    | 0.28   | 0.7     | 4.5   | 0.18 | 4     | 0.16 |

|                 |                                                                |                 |                                                    |
|-----------------|----------------------------------------------------------------|-----------------|----------------------------------------------------|
| $V_{\max}$      | Maximum operating voltage                                      | $R_{25}$        | Resistance at $25^\circ\text{C}$                   |
| $T_b$           | Switching temperature                                          | $I_{\text{mo}}$ | Maximum overload current                           |
| $I_{\text{nt}}$ | Maximum current without tripping ( $25^\circ\text{C}$ ambient) | $I_t$           | Minimum trip current ( $25^\circ\text{C}$ ambient) |

Data Sheet: YQ-1

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