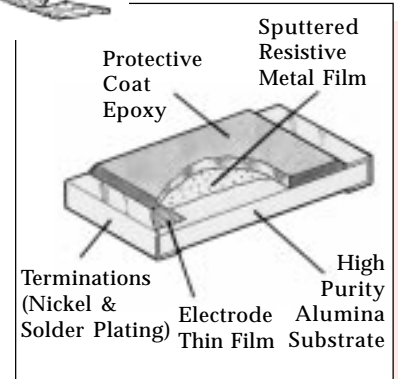
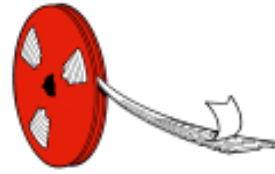


thin film precision chip

Key features

- clear 4 digit marking
- thin film (nichrome)
- tcr's $\pm 10\text{ppm}/^\circ\text{C}$, $\pm 15\text{ppm}/^\circ\text{C}$, $\pm 25\text{ppm}/^\circ\text{C}$
- tolerances $\pm 0.1\%$, $\pm 0.25\%$, $\pm 0.5\%$
- reels 5000, 4000, 1000 or loose
- stable high frequency performance
- 100 Vdc operating
- temperature -55°C to $+125^\circ\text{C}$



SMD Resistors

type RN series

The RN73 is a stable precision chip resistor range offering various power dissipations relating to chip size, TCR's down to $10\text{ppm}/^\circ\text{C}$ and resistor tolerances down to 0.1%. The resistor is produced with three print layers for longer life and better performance. Meggitt Electronics are probably alone in offering full reels of just 1000 pieces in the 08:05 package 0.1% tolerance types.

Specification

Electrical

Resistance Value Range

| Type | T.C.R. (ppm/ $^\circ\text{C}$) | Resistance tolerance E-24 & E96 series values (ohms) | | | |
|------|------------------------------------|---|--------------------|-------------------|-------------------|
| | | B ($\pm 0.1\%$) | C ($\pm 0.25\%$) | D ($\pm 0.5\%$) | F ($\pm 1.0\%$) |
| 2A | C (± 10) | 100~100K | 100~100K | 100~100K | - |
| | F (± 25) | 100~100K | 51~100K | 10~100K | 10~100K |
| | G (± 50) | - | 51~150K | 10~150K | 10~150K |
| | H (± 100) | - | - | 160K~1M | 160K~1M |
| 2B | C (± 10) | 100~130K | 100~130K | 100~130K | - |
| | F (± 25) | 100~130K | 51~130K | 10~130K | 10~130K |
| | G (± 50) | - | 51~360K | 10~360K | 10~360K |
| | H (± 100) | - | - | 390K~1M | 390K~1M |
| 2E | C (± 10) | 100~240K | 100~240K | 100~240K | - |
| | F (± 25) | 100~240K | 51~240K | 10~240K | 10~240K |
| | G (± 50) | - | 51~510K | 10~510K | 10~510K |
| | H (± 100) | - | - | 560K~1M | 560K~1M |

| | | | |
|----------------------------|---|-----------|-----------|
| Package Size: | 2A | 2B | 2E |
| Rated Power: | 0.1W | 0.125W | 0.25W |
| Maximum Working Voltage: | 100V | 150V | 200V |
| Maximum Overload Voltage: | 200V | 300V | 400V |
| Working temperature range: | -55°C to $+125^\circ\text{C}$ | | |
| Rated ambient temperature: | 70 $^\circ\text{C}$ | | |

Environmental

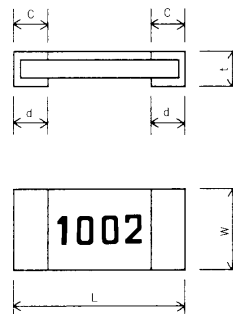
| ITEM | CHARACTERISTICS | TEST METHOD (JIS C 5202) |
|-------------------------------|---|--|
| DC resistance value: | Within allowance | Item 5.1 Condition A |
| Short -time overload: | C, F, G, $\pm(0.1\% + 0.05 \text{ ohms})$ H $\pm(0.25\% + 0.05 \text{ ohms})$ | Item 5.5 Condition A 2.5 x RCWV for 5 seconds |
| Insulation Resistance: | More than 10^3 M ohms | Item 5.6 500V DC |
| Dielectric withstand voltage: | $\pm (0.1\% + 0.05 \text{ ohms})$ | Item 5.7 500V DC 60 \pm 10 seconds |
| Resistance to solder heat: | C, F, G, $\pm(0.1\% + 0.05 \text{ ohms})$ H $\pm(0.25\% + 0.05 \text{ ohms})$ | Item 6.4 260°C \pm 5°C 10 \pm 1 second |
| Solderability: | 95% Minimum | Item 6.4 235°C \pm 5C 3 \pm 0.5 second |
| Terminal strength: | $\pm (0.1\% + 0.05 \text{ ohms})$ | Item 6.1.4 3mm deflection in either direction for 10 seconds Item 6.9 condition A |
| Resistance to solvent: | No damage and marking must remain legible. | |
| Temperature Cycle: | $\pm (0.25\% + 0.05 \text{ ohms})$ | Item 7.4 -55°C/+125°C 5 cycles |
| Moisture Resistance (Load): | $\pm (0.5\% + 0.05 \text{ ohms})$ | Item 7.9 40 \pm 2° 90-95% RH 1000 Hours |
| Life: | C, F, G, $\pm(0.25\% + 0.05 \text{ ohms})$ H $\pm(0.5\% + 0.05 \text{ ohms})$ | Item 7.10 70 \pm 3°C 1000 Hours 1 Year \pm ½ day 25 \pm 10°C |
| Room Temperature Exposure: | C, F, G, $\pm(0.1\% + 0.05 \text{ ohms})$ H $\pm(0.2\% + 0.05 \text{ ohms})$ <u>C, F, G, H relate to T.C.R.</u> | |

SMD Resistors

type RN series

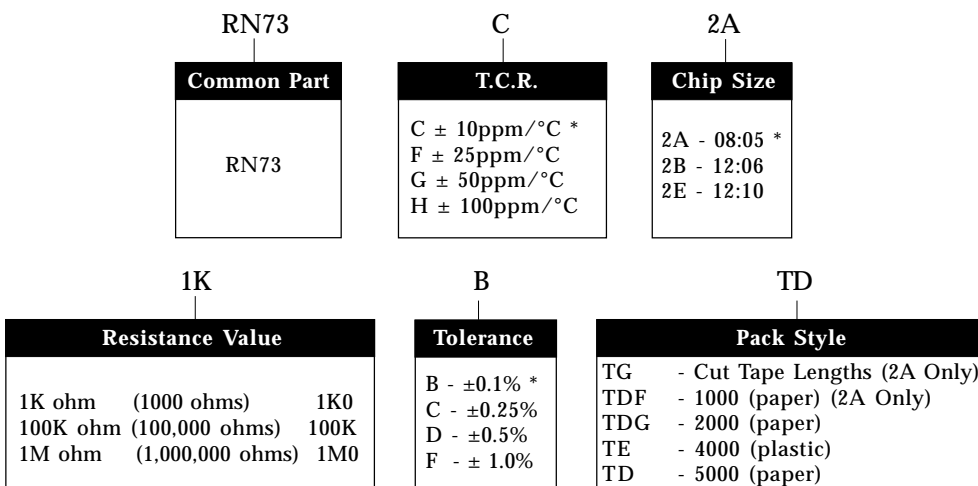
The RN73 has accurate and uniform physical dimensions to reduce placement problems. Values are restricted to the E96 grid. They are of course packaged on tape and reeled. Each resistor is individually part marked. The 08:05 chip is available in 0.1% 10ppm/°C from stock at all major UK catalogue distributors, in large or small quantities

Dimensions



| Type | Dimensions (mm) | | | | |
|----------|-----------------|-------------|---------------|-------------|-------------|
| | L \pm 0.2 | W \pm 0.2 | D | d \pm 0.2 | t \pm 0.1 |
| RN73 2A* | 2.0 | 1.25 | 0.4 \pm 0.2 | 0.3 | 0.5 |
| RN73 2B | 3.2 | 1.6 | 0.5 \pm 0.3 | 0.4 | 0.6 |
| RN73 2E | 3.2 | 2.5 | 0.5 \pm 0.3 | 0.4 | 0.6 |

How To Order



* Preferred Stock Item

Packaging:
08:05 only { 1000 Pieces (7" Reel)
2000 Pieces (7" Reel)
4000 Pieces (7" Reel)
5000 Pieces (7" Reel)

Please Request Full Data Sheet F0720