

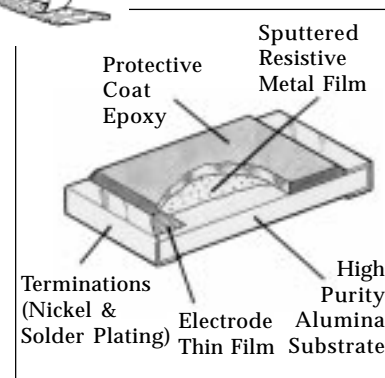
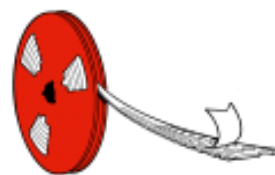
Precision Resistors SMD

20

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 0805 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°C		

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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 5°C 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
Resistance to solvent:	No damage and marking must remain legible.	Item 6.9 condition A
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>	

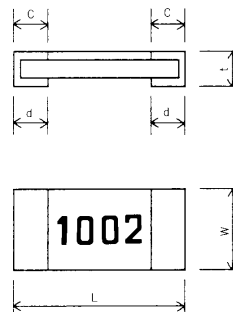
SMD Resistors

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

RN73 Common Part RN73		C T.C.R. C \pm 10ppm/°C * F \pm 25ppm/°C G \pm 50ppm/°C H \pm 100ppm/°C		2A Chip Size 2A - 08:05 * 2B - 12:06 2E - 12:10	
1K Resistance Value 1K ohm (1000 ohms) 1K0 100K ohm (100,000 ohms) 100K 1M ohm (1,000,000 ohms) 1M0		B Tolerance B - \pm 0.1% * C - \pm 0.25% D - \pm 0.5% F - \pm 1.0%		TD Pack Style TG - Cut Tape Lengths (2A Only) TDF - 1000 (paper) (2A Only) TDG - 2000 (paper) TE - 4000 (plastic) TD - 5000 (paper)	

* Preferred Stock Item