

Type RN73 Series

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The RN73 series is a high stability precision chip resistor range offering various power dissipations relating to chip size, TCR's down to 5ppm/°C and resistance tolerances to 0.1%. The resistor is produced with three sputtered layers giving optimum performance. Values are restricted to the E96 and E24 value grids. The RN73 has accurate and uniform physical dimensions to facilitate placement.

# **Key Features**

- High Precision -TCR 5ppm/°C and 10ppm/°C
- Tolerance of 0.1%
- Thin Film (Nichrome)
- Choice of Packages (0805 STD)
- Stable High Frequency Performance
- 100V DC Operating Voltage
- Temperature Range -55°C to +125°C

### Characteristics -Electrical

		0402			0603			08	05			12	06	
Rated Power @ 70°C (W):	0.063		0.063		0.1			0.125						
Resistance Range (Ohms) Min: Max:		OR 5K	47R 100K		5R 0K	10R 270K	25 20		5R11 470K	10R 270K		öR IOK		R11 OK
Tolerance (%):	0.01	0.05	0.1	0.01	0.05	0.1	0.01	0.05	0	.1	0.01	0.05	0	.1
Code Letter:	L	Α	В	L	Α	В	L	А	В	В	L	Α	В	В
Selection Series:	E96		E96		E96		E96							
Temperature Coefficient (ppm/C):	: 10ppm		10ppm		10ppm 5ppm		i 10ppm		n	5ppm				
Code Letter:	С			С		С			Α		С		Α	
Limiting Element Voltage (V):	25		50		100		150							
Maximum Overload Voltage (V):	50		100		200		300							
Operating Temp. Range (°C):	-55 to +125		-55 to +125		-55 to +125		-55 to +125							
Climatic Category:	55/125/55		55/125/55		55/125/55		55/125/55							
Insulation Resistance Dry Min (Mohms):	10000		10000		10000		10000							
Stability (%):	0.5		0.5		0.5		0.5							

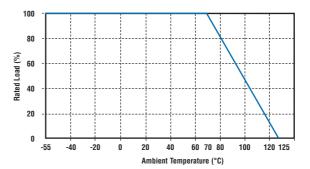
## Characteristics -Environmental

Test Item	Specif Tol. ≤0.05%	ication Tol.>0.05%	Test Method			
Temperature Coefficient of Resistance	As S	Spec	MIL-STD-202F Method 304 +25/-55/+25/+125/+25°C			
Short Time Overload	$\Delta R \pm 0.05\%$ $\Delta R \pm 0.5\%$ for h	$\Delta R \pm 0.5\%$	JIS-C-5202-5.5 RCWV*2.5 or Max Overloading Voltage for 5 seconds			
Dielectric Withstand Voltage	By t	type	MIL-STD-202F Method 301 Apply Max Overload Voltage for 1 minute			
Insulation Resistance	>100	OM Ω	MIL-STD-202F Method 302 Apply 100V <sub>DC</sub> for 1 minute			
Thermal Shock	ΔR±0.05% ΔR±0.25%		MIL-STD-202F Method 107G -55°C-150°C,100 cycles			
Load Life		∆R±0.2% AR±0.5% gh power rating	MIL-STD-202F Method 108A RCWV, 70°C, 1.5 hours ON, 0.5 hours OFF, total 1000~1048 hours			
Humidity (Steady State)	$\Delta R\pm 0.05\%$ $\Delta R\pm 0.5\%$ for h	∆R±0.3% igh power rating	MIL-STD-202F Method 103B 40°C, 90~95%RH, RCWV 1.5 hours ON, 0.5 hours OFF, total 1000~1048 hours			
Resistance to Dry Heat	ΔR±0.05% ΔR±0.2%		JIS-C-5202-7.2 96 hours @ +155°C without load			
Low Temperature Operation	$\Delta R \pm 0.05\%$ $\Delta R \pm 0.2\%$ $\Delta R \pm 0.5\%$ for high power rating		JIS-C-5202-7.1 1 hours, -65°C, followed by 45minutes of RCWV			
Bending Strength	∆R±0.05%	∆R±0.2%	JIS-C-5202-6.1.4 Bending Amplitude 3mm for 10 seconds			
Solderability	95%mir	i coverage	MIL-STD-202F Method 208H 235°C±5°C, 2±0.5 (sec)			
Resistance to Soldering Heat	esistance to Soldering Heat $\Delta R \pm 0.05\%$ $\Delta R \pm 0.2\%$		MIL-STD-202F Method 210E 260±5°C, 10±1 seconds			

\*Storage Temperature :25±3°C; Humidity <80%RH

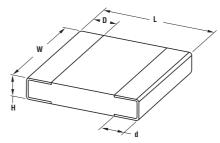
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# **Power Derating Curve**



For temperatures in excess of 70°C the load shall be derated in accordance with this curve.

## Dimensions



Туре	L ±0.2	W ±0.2	D	$d \pm 0.2_{0.1}$	H ± 0.1
RN73 1E	1.0	0.5	0.2	0.2	0.35
RN73 1J	1.6	0.8	0.3 ± 0.2	0.3	0.4
RN73A*	2.0	1.25	0.4 ± 0.2	0.3	0.5
RN73B	3.2	1.6	0.5 ± 0.3	0.4	0.6

How to Order RN73	C	2A	100K	B	TDF		
Common Part	Temp. Coefficient	Chip Size	Resistance Value	Tolerance	Pack Quantity		
RN73 - High Precision Resistors		1E - 04:02	100 ohms		TG - Cut Tape		
		1J - 06:03	(100 ohms) 100R	A ±0.05%	Lengths (1J, 2A only)		
· · /	(RoHS Compliant) A - ±5ppm/°C	*2A - 08:05	1 K ohm	B ±0.1%	TDF - 1000 (Paper)		
NR73 - High Precision Resistors (Non RoHS Compliant)	C - ±10ppm/°C	2B - 12:06	(1000 ohms) 1K0	L ±0.01%	(2A only)		
		*Preferred Stock Item	100 K ohm (100000 ohms) 100K	L 10.01 /0	TD - 5000 (Plastic)		