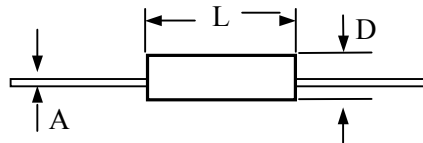




# Precision Resistors

## High Precision Metal Film Resistors - RN Series / 超精密金属膜电阻

- High precision
- extreme reliability
- excellent stability
- Moulding Type
- Low temperature coefficient PPM.
- Token RN Series meets MIL-PRF-55182 and GJB244A-2001 quality standards



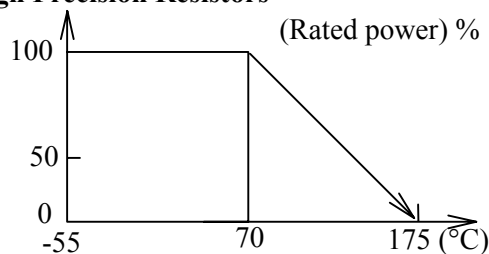
### ► High Precision Resistor Technical Characteristics

TYPE		RN50	RN55	RN60	RN65	RN70
Rated Wattage (W)	70°C	0.067	0.125	0.250	0.500	0.750
	125°C	0.050	0.100	0.125	0.250	0.500
Max. Working Voltage (V)		200	200	250	300	350
Dimensions (mm)	L ± 0.3	3.9	6.8	10.0	14.8	18.3
	D ± 0.4	1.8	2.5	3.7	5.2	6.5
	A ± 0.05	0.45	0.60	0.60	0.60	0.81
MIL-Approved Resistance Range (Ω)		10.0 ~ 100K	49.9 ~ 100K	49.9 ~ 499K	49.9 ~ 1.0M	24.9 ~ 1.0M
AWG Wire No.		26	22	22	22	20
Working Temperature Range		-55°C ~ +175°C				
Nominal Resistance Tolerance		B(±0.10%), C(±0.25%), D(±0.50%), F(±1.00%)				
Temperature Coefficient		E(±25PPM/°C), C(±50PPM/°C), D(±100PPM/°C)				

Remark • Temperature Coefficient PPM can be low to ±5PPM/°C, if applications only need operation in narrow precise temperature range within -55°C ~ +175°C. Please contact Token Representatives.

- Please contact Token's Representatives if your requirement is not in above range.

### ► Derating Curve - High Precision Resistors



### ► Periodical Inspection Items and Methods - High Precision Resistors

Type	Item	Method	Requirement
Long Period	Life time	GJB244A (MIL-PRF-55182) 4.8.18 Rated Wattage, 125°C, 2000h 10000h	GJB244A (MIL-PRF-55182) 3.24 $\Delta R \leq \pm(0.5\%R + 0.01\Omega)$ $\Delta R \leq \pm(2\%R + 0.01\Omega)$
	Humidity	GJB244A (MIL-PRF-55182) 4.8.18 -10°C ~ +65°C, RH < 90% Rated Wattage, Cycle 240h.	GJB244A (MIL-PRF-55182) 3.21 $\Delta R \leq \pm(0.4\%R + 0.01\Omega)$
	High temp exposed	GJB244A 4.8.19 175°C 2000h	GJB244A (MIL-PRF-55182) 3.25 $\Delta R \leq \pm(2.0\%R + 0.01\Omega)$
Short Period	Dielectric voltage	GJB244A (MIL-PRF-55182) 4.8.12/4.8.23/4.8.10	GJB244A (MIL-PRF-55182) 3.18/3.29/3.16 $\Delta R \leq \pm(0.15\%R + 0.01\Omega)$ no physical damage, arc, isolation break through
	Lead strength Impact High frequency vibration	GJB244A (MIL-PRF-55182) 4.8.11/4.8.16/4.8.17	GJB244A (MIL-PRF-55182) 3.17/3.22/3.23 $\Delta R \leq \pm(0.20\%R + 0.01\Omega)$ no physical damage
	Solderability	GJB244A (MIL-PRF-55182) 4.8.14	GJB244A (MIL-PRF-55182) 3.20 $\Delta R \leq \pm(0.10\%R + 0.01\Omega)$ no physical damage





# Precision Resistors

## ► How to Order

RN65

①

0.500W

②

100KR

③

D

④

C2

⑤

P

⑥

① Product type: RN50, RN55, RN60, RN65, RN70.

### ② Rated Power (W)

Temperature	Rated Power (W)
70 °C	0.067
	0.125
	0.250
	0.500
	0.750
125 °C	0.050
	0.100
	0.125
	0.250
	0.500

③ Resistance Value ( $\Omega$ ): 10.0 ~ 100K, 49.9 ~ 100K, 49.9 ~ 499K, 49.9 ~ 1.0M, 24.9 ~ 1.0M.

### ④ Resistance Tolerance (%)

Code	Resistance Tolerance (%)
B	$\pm 0.10$
C	$\pm 0.25$
D	$\pm 0.50$
F	$\pm 1.00$

### ⑤ Temperature Coefficient (ppm/°C)

Code	Temperature Coefficient (ppm/°C)
C3	$\pm 25$
C2	$\pm 50$
C1	$\pm 100$

⑥ Packaging: P (Bulk)