

# Carbon Film Resistor

## Features

- Excellent long term stability
- Wide resistance range
- Light brown colour, epoxy coating
- High stability, low noise level, long life
- Ideal for applications requiring a steady low power drop
- Advanced pulse load capability
- Suitable for circuits exposed to high levels of electromagnetic interference or electro-static discharge



## Applications

Automotive / Telecommunication / Industrial / Medical equipment

## PART NUMBER

Example: RND 155RD18JN1R0T52

RND 155RD18	J-N	1R0	T52
Type	Tolerance J (5%) G (2%)	Resistance	Forming Type T/B - Tape in Box

## Dimensions



Type	L	D	H	d
RND 155RD18	3.3 ± 0.4 mm	1.8 ± 0.3 mm	29 ± 2 mm	0.45 ± 0.03 mm
RND 155RD14	6.3 ± 0.5 mm	2.3 ± 0.3 mm	28 ± 2 mm	0.55 ± 0.03 mm
RND 155RD12	9 ± 0.5 mm	3.2 ± 0.5 mm	26 ± 2 mm	0.65 ± 0.03 mm

## Electrical Characteristics

Type	Power Rating at 70°C	Operating Temperature Range	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Value Range
RND 155RD18	125 mW	-55 ... 155 °C	150 V	300 V	300 V	1 Ohm ... 10 MOhm
RND 155RD14	250 mW	-55 ... 155 °C	250 V	500 V	500 V	1 Ohm ... 10 MOhm
RND 155RD12	500 mW	-55 ... 155 °C	350 V	700 V	700 V	1 Ohm ... 10 MOhm

## Temperature Coefficient (T.C.R)

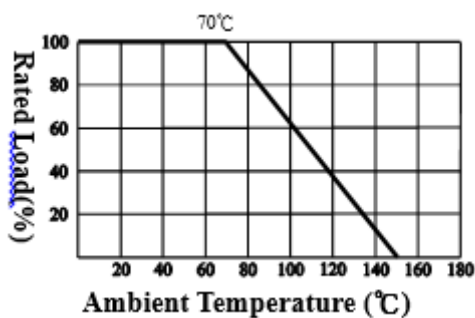
Type	Under 100 kOhm	100 kOhm ... 1 MOhm	1 MOhm ... 10 MOhm
RND 155RD18	+350 ppm- 500 ppm	-0ppm-700 ppm	-0ppm-1500 ppm
RND 155RD14	+350 ppm- 500 ppm	-0ppm-700 ppm	-0ppm-1500 ppm
RND 155RD12	+350 ppm- 500 ppm	-0ppm-700 ppm	-0ppm-1500 ppm

## Environmental Characteristics

PERFORMANCE TEST	TEST METHOD	APPRAISE
SHORT TIME OVERLOAD	JIS-C-5202 5.5 2.5 times RCWV for 5 seconds	$\pm(0.75\%+0.05\Omega)$
TEMPERATURE COEFFICIENT(T.C.R.)	Resistance value at room Temperature and room Temperature+100°C	page
DIELECTRIC WITHSTANDING VOLTAGE	JIS-C5202 5.7 In V-Block for 60 seconds	By Type
PULSE OVERLOAD	JIS-C5202 5.8 4 times RCWV for 10000cycles(1sec.on + 25secs.off)	$\pm(1\%+0.05\Omega)$
INSULATION RESISTANCE	JIS-C5202 5.6 In V-Block	>10000MΩ
LOAD LIFE	JIS-C5202 7.10 70°C at RCWV for 1000hrs.(1.5hrs. on + 0.5hrs.off)	$\pm(3\%+0.05\Omega)$
LOAD LIFE IN HUMIDITY	JIS-C5202 7.9 40±2°C 90-95%RH at RCWV for 1000hrs. (1.5hrs. on + 0.5hrs.off)	Less than 100KΩ±3% 100KΩ or more±5%
SOLDER ABILITY	JIS-C5202 6.5 260±5°C for 2±0.5 seconds	95% min. coverage
RESISTANCE TO SOLVENT	JIS-C5202 6.9 Trichroethane for 1 min. with ultrasonic	No deterioration of coatings and markings
TERMINAL STRENGTH	Direct load for 10 sec. In the direction off the terminal leads.	Tensile: ≥2.5kg

★ Rated continuous Working Voltage (RCWV) =  $\sqrt{POWER RATING * RESISTANCE VALUE}$

### Power Graph



### Hot-Spot Temperature

