

WIRE WOUND

WIRE WOUND RESISTORS

R Power Resistors

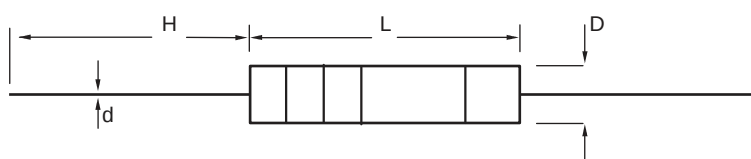
KNP
Series

INTRODUCTION

Wire wound resistors are made by winding the resistance wire on the alkaliless ceramic core, coated with non-corrosive, heat-proof and humidity-proof material.

FEATURES

- The resistor is fabricated using a suitable fiberglass or ceramic core with the resistance wire securely crimped to the terminals.
- Small in size comparatively than other kind resistor.
- Electrical and mechanical stability and high reliability.
- Tolerance of 5% are standard.



KNP E24 Series Marking: 4 Color Bands

MECHANICAL DIMENSION REV.

TYPE		DIMENSIONS (mm)				RESISTANCE
NORMAL	SMALL	D ± 0.5	L ± 1	H ± 3	d ± 0.05	RANGE (Ωm)
KNP-1/2W	KNS-1W	3.5	9	26	0.55	0.1- 47
KNP-1W	KNS-2W	4.5	11	28	0.75	0.1-100
KNP-2W	KNS-3W	5.0	15	35	0.75	0.1-330
KNP-3W	KNS-4W	6.0	17	35	0.8	0.1-560
KNP-4W	KNS-5W	6.0	17	32	0.8	0.1-560
KNP-5W	KNS-7W	8.0	24	32	0.8	0.1-1K
KNP-7W	KNS-10W	8.0	41	32	0.8	0.1-1.5K
KNP-10W		8.0	52	38	0.8	0.1-3.3K

Note 1: KNS=small size; NKN=NON-INDUCTIVE
2: Resistance value different, prices are different.

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ELECTRICAL CHARACTERISTIC

Style \ Power Rating 70°C	KNP-1/2W	KNP-1W	KNP-2W	KNP-3W	KNP-4W	KNP-5W	KNP-7W	KNP-10W
	KNS-1W	KNS-2W	KNS-3W	KNS-4W	KNS-5W	KNS-7W	KNS-10W	
Operating Temp. Range	-55°C ~ +155°C							
Dielectric Withstanding Voltage (AC)	300V	400V	400V	400V	400V	400V	500V	1000V
Value Range ±1%, ±5%	0.1 ~ 47Ω	0.1 ~ 100Ω	0.1 ~ 330Ω	0.1 ~ 560Ω	0.1 ~ 560Ω	0.1 ~ 1KΩ	0.1 ~ 1.5KΩ	0.1 ~ 3.3KΩ
Temp. Coefficient (by Type)	± 350ppm							

- * a. Standard resistance is as the above list, below or over this resistance is on request.
b. Value for NKN Non-Inductive type is up to 50Ω only.

ENVIRONMENTAL CHARACTERISTIC

PERFORMANCE TEST	TEST METHOD	APPRAISE
Short Time Overload	JIS-C-5202 5.5: 2.5 times RCWW for 5 seconds	± (0.25%+0.05Ω)
Dielectric Withstanding V.	JIS-C-5202 5.7: in V-Block for 60 seconds	By Type
Temperature Coefficient	JIS-C-5202 5.2: -55°C ~ + 155°C	± 350ppm
Insulation Resistance	JIS-C-5202 5.6: in V-Block	≥1000 MΩ
Solderability	JIS-C-5202 6.5: 235°C for 5 ±0.5 seconds	95% min. coverage
Resistance to Solvent	JIS-C-5202 6.9: Trichroethance for 1min. with ultrasonic	no deterioration
Terminal Strength	Direct load for 10 sec. In the direction of the terminal leads	≥2.5KG / 24.5N
Load Life in Humidity	JIS-C-5202 7.9: 40 ± 2°C, 90~95%BH at RCWW for 1000 hrs (1.5 hrs. on, 0.5 hrs. off)	± (3%+0.05Ω)
Load Life	JIS-C-5202 7.10: 70°C at RCWW for 1000hrs (1.5hrs.on, 0.5hrs.off)	± (3%+0.05Ω)

Rated Continuous Working Voltage (RCWW)= $\sqrt{\text{Power Rating} \times \text{Resistance Value}}$

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FIG.1 DERATING CURVE

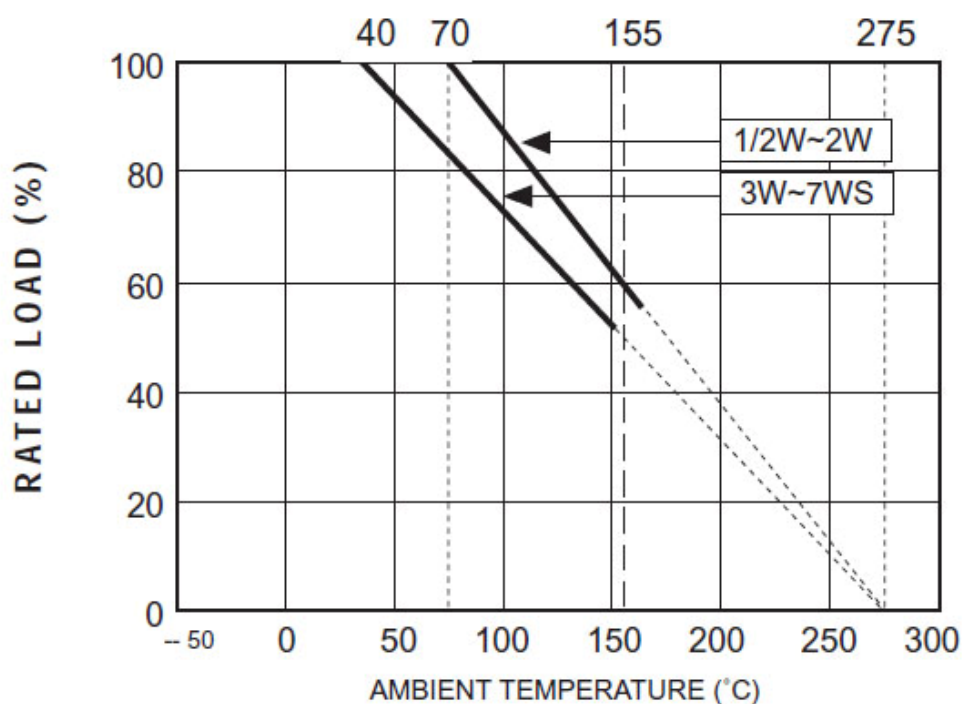


FIG.2 TEMPERATURE RISE

