

Wirewound Resistors

FLAME-PROOF TYPE

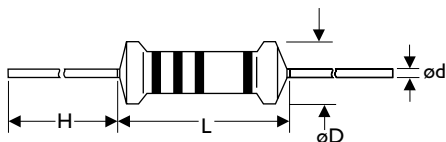
Normal & Miniature Style [KNP Series NKN Series]



INTRODUCTION

- 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
- The KNP/NKN series are coated with layers of green color flame-proof lacquer. The resistors meet overload tests in accordance with UL specification #1412 without producing a fire hazard

DIMENSIONS



NKN has 5 color bands, the 5th black band.

FEATURES

Industry's Lowest Cost

Delivery From Stock in Bulk Taped, and Strip Pack

Exceptional Long-Term Stability

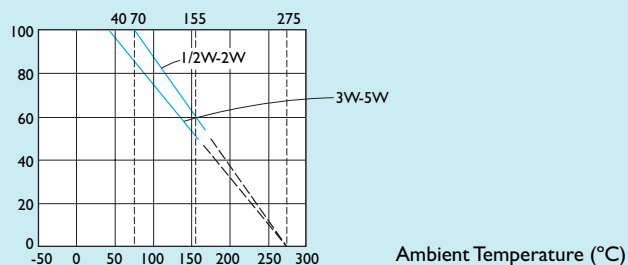
Exceeds Carbon Comp MIL-R-11 Performance

Resistance Tolerance: $\pm 5\%$

Variety of Packaging—Bulk, Strip Pack, 52mm Tape and Reel, Cut and Formed, or Radial Panaset/Avise t

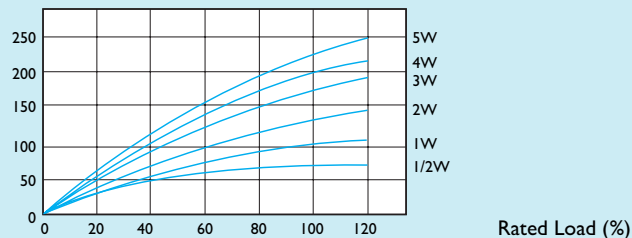
DERATING CURVE

Rated Load (%)



TEMPERATURE RISE

Temperature Rise (°C)



Unit : mm

STYLE		DIMENSION			
Normal	Miniature	L	øD	H	ød
KNP-50	KNP1WS	9.0±1.0	3.5±0.5	26±2.0	0.6±0.05
KNP100	KNP2WS	11.5±1.0	4.5±0.5	35±2.0	0.8±0.05
KNP200	KNP3WS	15.5±1.0	5.0±0.5	33±2.0	0.8±0.05
KNP300	—	17.5±1.0	6.0±0.5	32±2.0	0.8±0.05
KNP400	KNP5WS	17.5±1.0	6.0±0.5	32±2.0	0.8±0.05
KNP500	—	24.5±1.0	8.0±0.5	38±2.0	0.8±0.05



Note :

ELECTRICAL CHARACTERISTICS

STYLE	KNP-50	KNP1WS	KNP100	KNP2WS	KNP200	KNP3WS	KNP300	KNP400	KNP5WS	KNP500
Power Rating	1/2W	1W		2W		3W		4W	5W	
Operating Temp. Range	-55°C to +155°C									
Dielectric Withstanding Voltage	300V	300V	400V	400V	400V	400V	400V	400V	400V	400V
Value Range $\pm 5\%$	0.1 Ω ~47 Ω		0.1 Ω ~100 Ω		0.1 Ω ~330 Ω		0.1 Ω ~560 Ω		0.1 Ω ~1K Ω	
Temperature Coefficient	± 400 ppm/°C									

* 1. Standard resistance is as the above list, below or over this resistance on request.

* 2. Non-Inductive type up to 50 Ω only.

ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD	APPRAISE	
Short Time Overload	JIS-C-5202 5.5	2.5 Times RCWV for 5 Seconds	$\pm (2\%+0.05\Omega)$
Dielectric Withstanding Voltage	JIS-C-5202 5.7	in V-Block for 60 Seconds	by Type
Temperature Coefficient of Resistance	JIS-C-5202 5.2	-55°C to +155°C	± 400 ppm/°C
Insulation Resistance	JIS-C-5202 5.6	in V-Block	>100M Ω
Solderability	JIS-C-5202 6.5	235°C for 5 \pm 0.5 Seconds	95% Min. Coverage
Resistance to Solvent	JIS-C-5202 6.9	Trichroethane for 1 Min. with Ultrasonic	No Deterioration of Coatings and Markings
Terminal Strength	Direct Load for 10 Sec. in The Direction of The Terminal Leads		≥ 2.5 kg (24.5N)
Load Life in Humidity	JIS-C-5202 7.9	40 \pm 2°C, 90~95% RH at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off)	$\pm (3\%+0.05\Omega)$
Load Life	JIS-C-5202 7.10	70°C at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off)	$\pm (3\%+0.05\Omega)$

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