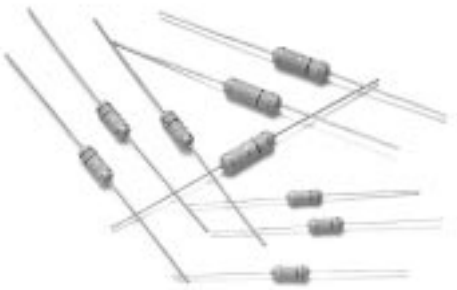
Wirewound Resistors

FLAME-PROOF TYPE

Normal & Miniature Style [KNP Series NKN Series]



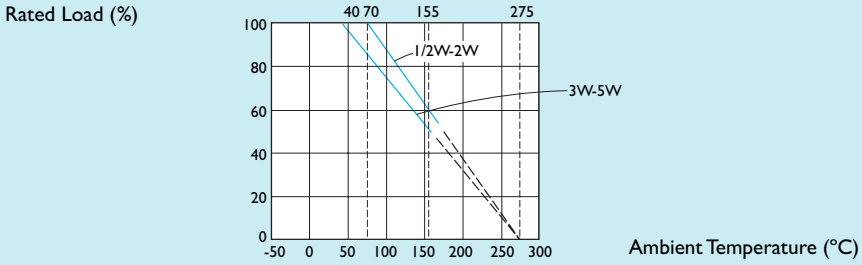
INTRODUCTION

- 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 Mectanical 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

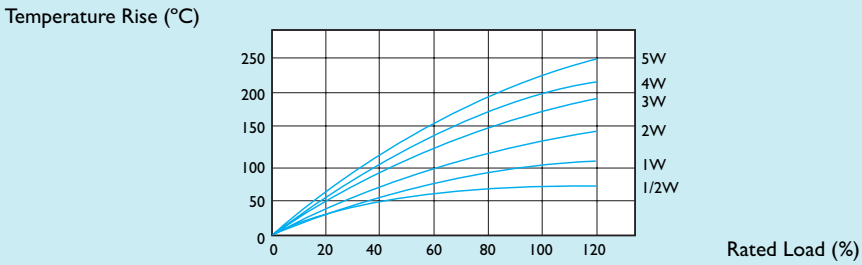
FEATURES

- 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: ±5%
- Variety of Packaging–Bulk, Strip Pack, 52mm Tape and Reel, Cut and Formed, or Radial Panasert/Avisert

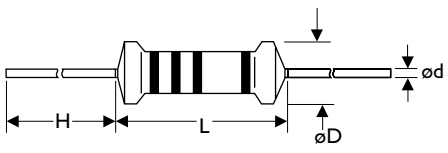
DERATING CURVE



TEMPERATURE RISE



DIMENSIONS



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

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	-55ºC to +155ºC									
Dielectric Withstanding Voltage	300V	300V	400V	400V	400V	400V	400V	400V	400V	400V
Value Range ±5%	0.1Ω~47Ω		0.1Ω~100Ω		0.1Ω~330Ω		0.1Ω~560Ω			0.1Ω~1KΩ
Temperature Coefficient	±400ppm/ºC									

* 1. Standard resistance is as the above list, below or over this resistance on request.
* 2. Non-Inductive type up to 50Ω only.

ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD		APPRAISE
Short Time Overload	JIS-C-5202 5.5	2.5 Times RCWV for 5 Seconds	±(2%+0.05Ω)
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	-55ºC to +155ºC	±400ppm/ºC
Insulation Resistance	JIS-C-5202 5.6	in V-Block	>100MΩ
Solderability	JIS-C-5202 6.5	235ºC for 5±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		≥2.5kg (24.5N)
Load Life in Humidity	JIS-C-5202 7.9	40±2ºC, 90~95% RH at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off)	±(3%+0.05Ω)
Load Life	JIS-C-5202 7.10	70ºC at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off)	±(3%+0.05Ω)

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