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# KNPxWS Mini-Wirewound Resistor

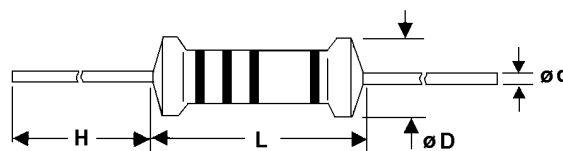
- SMALLER SIZE THAN KNP SERIES
- EXCEPTIONAL LONG-TERM STABILITY
- NON-INDUCTIVE SERIES AVAILABLE (NKN)
- EXCEEDS CARBON COMP MIL-R-11 PERFORMANCE
- 5% STANDARD TOLERANCE

## POWER RATING

Standard Type: 1W ~ 5W

## DIMENSIONS

NKN has 5 colour bands, the 5th is a Black band.



STYLE	DIMENSIONS (mm)			
	L	W	H	d
KNP1WS	9.0 ±1.0	3.5 ±0.5	26 ±2.0	0.6 ±0.05
KNP2WS	11.5 ±1.0	4.5 ±0.5	35 ±2.0	0.8 ±0.05
KNP3WS	15.5 ±1.0	5.0 ±0.5	33 ±2.0	0.8 ±0.05
KNP5WS	17.5 ±1.0	6.0 ±0.5	32 ±2.0	0.8 ±0.05

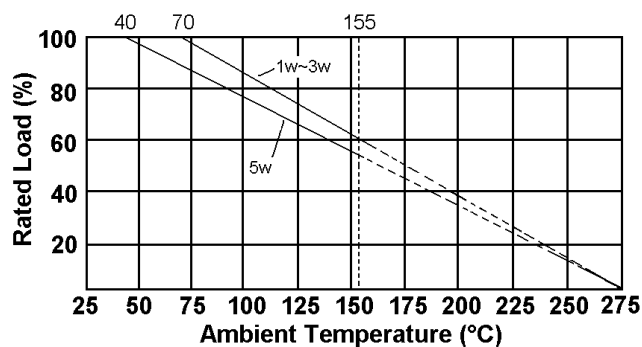
## ELECTRICAL CHARACTERISTICS

Power Rating at 70°C	1 w	2 w	3 w	5 w
STYLE	KNP1WS	KNP2WS	KNP3WS	KNP5WS
Operating Temp. Range	-55°C ~ +155°C			
Dielectric Withstanding Voltage	300v	400v	400v	400v
Value Range ±5%*	0R1Ω~47Ω	0R1Ω~100Ω	0R1Ω~330Ω	0R1Ω~560Ω
Temperature Coefficient	± 300 ppm / °C			± 400 ppm / °C

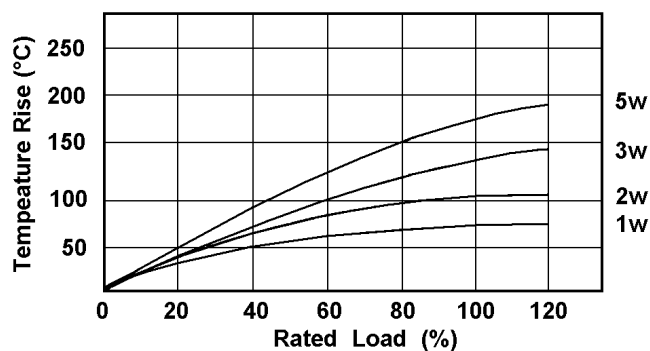
\*Resistance Range for standard resistance – below or over this resistance on request.

Non-Inductive type (NKN) up to 50Ω only.

## POWER DERATING CURVE



## TEMPERATURE RISE

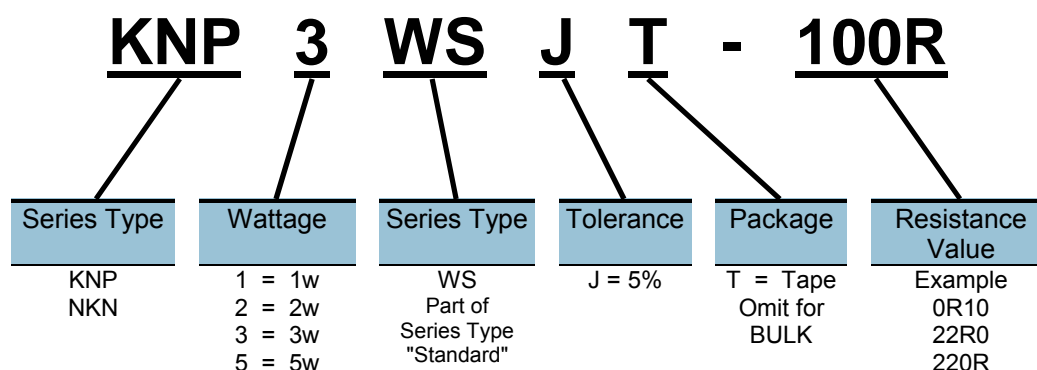


## ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD	APPRAISE
Short Time Overload	JIS-C-5202 5.5 2.5 Times RCWV for 5 seconds	$\pm (2\%+0.05\Omega)$
Temperature Coefficient (T.C.R.)	JIS-C-5202 5.2 -55°C to +155°C	$\pm 400\text{ppm}/^\circ\text{C}$
Dielectric Withstanding Voltage	JIS-C-5202 5.7 In V-Block for 60 seconds	By Type
Insulation Resistance	JIS-C-5202 5.6 In V-Block	$>100\text{M}\Omega$
Load Life	JIS-C-5202 7.10 70°C at RCWV for 1000 Hr (1.5Hrs on, 0.5Hrs off)	$\pm (3\%+0.05\Omega)$
Load Life in Humidity	JIS-C-5202 7.9 40 $\pm$ 2°C, 90~95% RH at RCWV for 1000 Hr (1.5Hrs on, 0.5Hrs off)	$\pm (3\%+0.05\Omega)$
Solderability	JIS-C-5202 6.5 235°C for 5 $\pm$ 0.5 seconds	95% Minimum Coverage
Resistance to Solvent	JIS-C-5202 6.9 Trichroethane for 1min with Ultrasonic	No Deterioration of Coatings and Markings
Terminal Strength	Direct load for 10 sec in direction of the Terminal Leads	$\geq 2.5\text{kg}$ (24.5N)

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

## PART NUMBER



## STANDARD PACKAGING

BULK Special Order  
Call

TAPE 1w, 2w 1,000 pieces  
3w, 5w 500 pieces

**LEAD FREE**

KNP Series parts are lead free.  
RoHS Compliant