

# WIRE WOUND RESISTORS

# KNP SERIES

## 10W, 15W

### Feature

- Small size and low cost.
- Super heat dissipation, instant overload capability.
- Standard tolerance: ±1%, ±5%
- Standard Value: E24 series as range below
- Lettering marking
- Available in non-inductive style (As NKNP type)
- Flameproof coating, silicone paint meet UL 94-V-0
- Operating temperature : -55°C ~+275°C

### Material

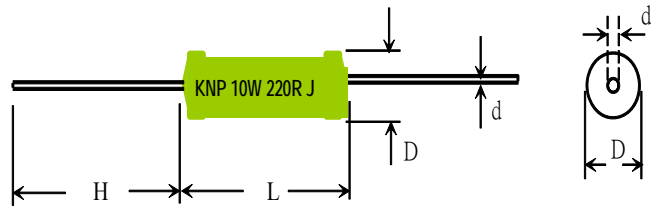
Element: Alloy Resistance Wire

Core: High purity ceramic Al<sub>2</sub>O<sub>3</sub>

Termination: Standard solder-plated copper lead

Coating: Green silicone

### Dimension



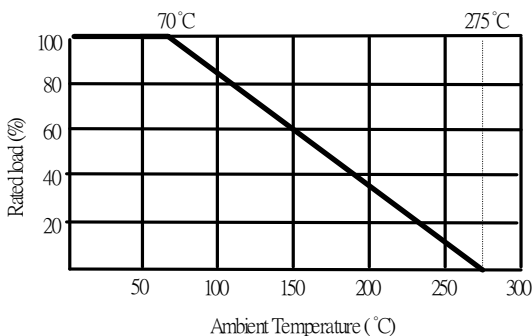
### General Specification

TYPE	DIMENSION (mm)				POWER RATING	MAXIMUM WORKING VOLT.	RESISTANCE RANGE	
	L±1.0	D±1.0	H±3.0	d ± 0.05			STANDARD	MAXIMUM
KNP10W	42.0	8.0	38.0	0.80	10W	$E = \sqrt{P * R}$	2Ω~1KΩ	4.7KΩ
KNP15W	53.0	8.0	38.0	0.80	15W		2Ω~1.5KΩ	4.7KΩ

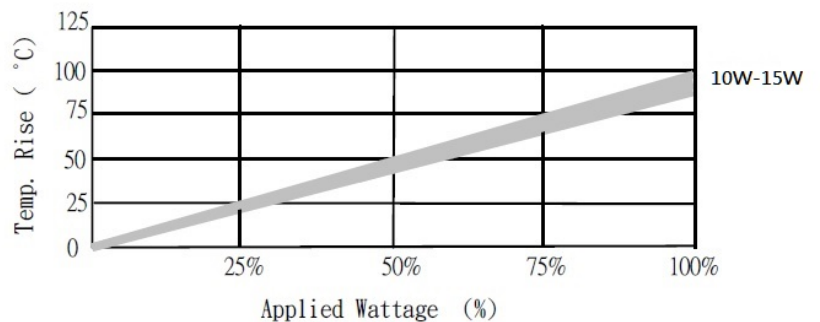
\* Maximum overload voltage equals to  $\sqrt{P * R \times 10}$

\*\* Resistance values out of standard range is available on request.

### Derating Curve



### Temperature Rise



# WIRE WOUND RESISTORS

# KNP SERIES

## 10W, 15W

### Characteristics

Item	Requirement	Test Method
Short Time Overload	$\pm(2\%+0.05\Omega)$	JIS-C-5201-1 5.5 RCWV*2.5 or Max. overload voltage for 5 seconds
Insulation Resistance	$> 1000M\Omega$	JIS-C-5201-1 5.6 Apply 100VDC for 1 minute
Endurance	$\pm(5\%+0.05\Omega)$	JIS-C-5201-1 7.10 70 $\pm$ 2 $^{\circ}$ C, Max. RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5hrs "OFF"
Damp Heat with Load	$\pm(5\%+0.05\Omega)$	JIS-C-5201-1 7.9 40 $\pm$ 2 $^{\circ}$ C, 90~95% R.H. RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5hrs "OFF"
Solder ability	90% min. Coverage	JIS-C-5201-1 6.5 245 $\pm$ 5 $^{\circ}$ C for 3 seconds
Dielectric Withstanding Voltage	400V	JIS-C-5201-1 5.7 Apply Max. Overload Voltage for 1 minute
Temperature Coefficient	$\pm 250PPM/^{\circ}C$	Resistance value at room temperature and room Temperature+100 $^{\circ}$ C
Pulse Overload	$\pm(1\%+0.05\Omega)$	JIS-C-5201-1 5.8 4 times RCWV for 10000 cycles with 1 second "ON" and 25 seconds "OFF"
Resistance To Solvent	No deterioration of coatings and markings	JIS-C-5201-1 6.9 Trichroethane for 1 min. with ultrasonic
Terminal Strength	Tensile: $\geq 2.5$ kg	Direct Load for 10 seconds In the direction off the terminal leads
Shelf Life	$\Delta R = \pm 0.1\%$	12 months at room temperature 25 $\pm$ 3 $^{\circ}$ C, 80%RH Max.

**\*Storage Temperature : 25 $\pm$ 3 $^{\circ}$ C ; Humidity < 80%RH**

### Part Numbering

<b><u>KNP10W</u></b>	<b><u>J</u></b>	<b><u>B</u></b>	-	<b><u>10R</u></b>
↓	↓	↓		↓
Type/Power	Tol.	Package		Resistance
KNP10W	F= $\pm$ 1%	B=Bulk		0R1 = 0.1 $\Omega$
KNP15W	J= $\pm$ 5%			10R = 10 $\Omega$
				1K2R = 1.2K $\Omega$