WIRE-WOUND FIXED RESISTORS

Features

- Color coating is "Green"
- Non-Inductive type available
- Excellent flame resistance
- Too low or too high ohmic value can be supplied on a case to case basis

Ordering Procedure: (Ex.: KNP 1W, +/-5%, 100Ω, T/B-1000)

| K | N | P | 0 | 1 | W | J | 0 | 1 | 0 | 1 | A | 1 | 8 |

Resistor Type:
KNP = KNP Type
KNS = KNS Type
KNH = KNH Type

Special Feature:
0 = Standard Product
I = Non-Inductive Product

Wattage:
Normal size:
W2=1/2W
1W=1W
:: ::
9W=9W
AW=10W
:: ::
A0=100W

Small size:
1S=1W-S
:: ::
9S=9W-S
AS=10W-S

*** For KNS & KNH Type-available is B/B packing Only.

*** 00 = for power rating over 100W. Please indicate the power rating at the last 3 digits of the part no. (B/B Only)

Tolerance:
F = ±1%
G = ±2%
J = ±5%
K = ±10%

Resistance Value:
- E-24 series: the 1st digit is "0", the 2nd & 3rd digits are for the significant figures of the resistance and the 4th indicate the number of zeros: "J" ~ 0.1, "K" ~ 0.01
  Ex. 4.7Ω ~ 47J, 4.7KΩ ~ 472
- E-96 series: The 1st to 3rd digits are significant figures of resistance and the fourth one denotes number of zeros.
  Ex. 1.33 KΩ = 1331

Packing Type:
A = Tape/Box
T = Tape/Reel
B = Bulk/Box

Packing Qty:
1 = 1,000 pcs, 2 = 2,000 pcs, A = 500 pcs,
B = 2,500 pcs (for T/R), 0 = for Bulk/Box packing

Additional Information:
(for B/B pack only)
0 = NIL

(for KNP Type only)
0 = PT-52 mm, NIL for PT-26
8 = PT-58 mm
9 = PT-64 mm

More explanation on part no, please see details on pages 79-80.

Performance Specifications

|	
Temperature coefficient	<20Ω: ±400PPM/°C; ≥20Ω: ±300PPM/°C
Short-time overload	ΔR/R ≤ ±(2.0% + 0.05Ω), with no evidence of mechanical damage.
Terminal strength	No evidence of mechanical damage.
Resistance to soldering heat	ΔR/R ≤ ±(1.0% + 0.05Ω), with no evidence of mechanical damage.
Solderability	Min. 95% coverage
Load life in humidity	ΔR/R ≤ ±(5.0% + 0.05Ω), with no evidence of mechanical damage.
Load life	ΔR/R ≤ ±(5.0% + 0.05Ω), with no evidence of mechanical damage.
Dielectric withstanding voltage	No evidence of flashover, mechanical damage, arcing or insulation breakdown.
Pulse overload	ΔR/R ≤ ±(5.0% + 0.05Ω), with no evidence of mechanical damage.
Temperature cycling	ΔR/R ≤ ±(2.0% + 0.05Ω), with no evidence of mechanical damage.
Non-Flame	No evidence of flaming or arcing.

More details, please see pages 77-78.

RoHS

2006 - 2007

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(1) KNP Type
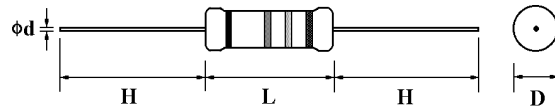
Normal Size

Part No.	Style	Power Rating at 70°C	Dimension (mm)				Resistance Range
			D ± 1	L ± 1	H ± 3	d ± 0.05	
KNP0W2	KNP-50	1/2W (0.5W)	3.5	10	28	0.54	0.1Ω ~ 39Ω
KNP01W	KNP-100	1W	5	12	28	0.70	0.1Ω ~ 50Ω
KNP02W	KNP-200	2W	5.5	16	28	0.70	0.1Ω ~ 120Ω
KNP03W	KNP-300	3W	6.5	17.5	28	0.75	0.1Ω ~ 200Ω
KNP05W	KNP-500	5W	8.5	25	38	0.75	0.5Ω ~ 470Ω
KNP07W	KNP-700	7W	8.5	30	38	0.75	0.5Ω ~ 470Ω
KNP08W	KNP-800	8W	8.5	40	38	0.75	1Ω ~ 1.5KΩ
KNP09W	KNP-900	9W	8.5	53	38	0.75	1Ω ~ 1.5KΩ

Small Size

Part No.	Style	Power Rating at 70°C	Dimension (mm)				Resistance Range
			D ± 1	L ± 1	H ± 3	d ± 0.05	
KNP01S	KNP-100-S	1W	3.5	10	28	0.54	0.1Ω ~ 39Ω
KNP02S	KNP-200-S	2W	5	12	28	0.70	0.1Ω ~ 50Ω
KNP03S	KNP-300-S	3W	5.5	16	28	0.70	0.1Ω ~ 120Ω
KNP05S	KNP-500-S	5W	6.5	17.5	28	0.75	0.1Ω ~ 200Ω
KNP07S	KNP-700-S	7W	8.5	25	38	0.75	0.5Ω ~ 470Ω
KNP08S	KNP-800-S	8W	8.5	30	38	0.75	0.5Ω ~ 470Ω
KNP09S	KNP-900-S	9W	8.5	40	38	0.75	1Ω ~ 1.5KΩ
KNP0AS	KNP-1000-S	10W	8.5	53	38	0.75	1Ω ~ 1.5KΩ

Remark : For KNP Series Max Working Voltage : 500V.
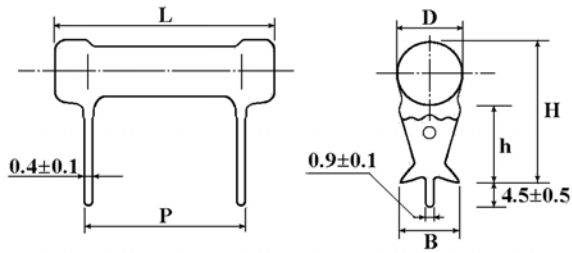Max Overload Voltage : 1000V.

**Derating Curve**
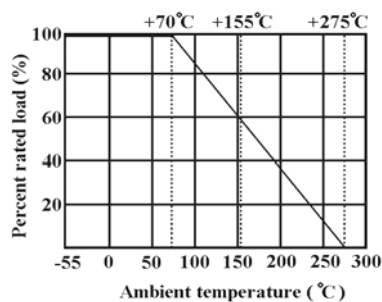
Heat Rise Chart
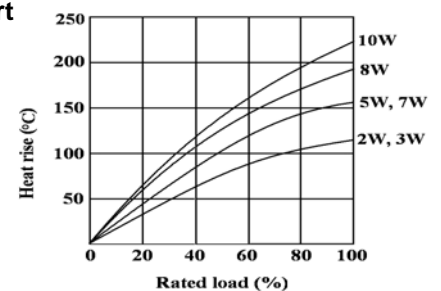
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(2) KNS Type

Part No.	Style	Power Rating at 70ºC	Dimension (mm)						Resistance Range
			D Max.	L ± 1.5	P ± 0.5	H ± 1	h ± 1	B ± 0.5	
KNS02W	KNS-200	2W	8	19	8	19.0	12	4.5	0.1Ω ~ 50Ω
KNS03W	KNS-300	3W	8	21	10	19.0	13	4.5	0.5Ω ~ 50Ω
KNS05W	KNS-500	5W	10	26	15	21.5	13	6.5	0.5Ω ~ 100Ω
KNS07W	KNS-700	7W	10	31	20	21.5	13	6.5	1Ω ~ 1KΩ
KNS08W	KNS-800	8W	10	41	30	21.5	13	6.5	1Ω ~ 1.5KΩ
KNS0AW	KNS-1000	10W	10	54	43	21.5	13	6.5	1Ω ~ 2KΩ
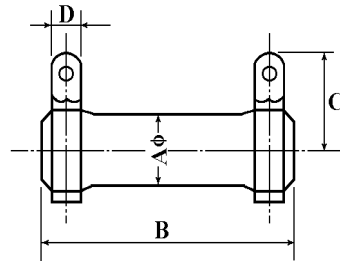
(3) KNH Type

Part No.	Style	Power Rating at 70ºC	Dimension (mm)				Resistance Range
			A ± 1.5	B ± 1.5	C ± 3	D ± 0.5	
KNH020	KNH-20W	20W	19	50	19	4.5	0.4Ω~10KΩ
KNH030	KNH-30W	30W	19	75	19	4.5	0.5Ω~15KΩ
KNH040	KNH-40W	40W	19	90	19	4.5	0.6Ω~20KΩ
KNH050	KNH-50W	50W	28	75	31	8	3Ω~25KΩ
KNH060	KNH-60W	60W	28	90	31	8	3Ω~30KΩ
KNH080	KNH-80W	80W	28	115	31	8	3Ω~40KΩ
KNH...100	KNH-100W	100W	28	140	31	8	3Ω~50KΩ
KNHA25	KNHA-25W	25W	21	41	24	5	0.4Ω~10KΩ