■ 特性 Feature

- 體積小、耐熱性好
  Small size, good heat resistance
- 溫度係數小、阻值精度高
  Small temperature coefficient, high precision resistance
- 短時間超負載性能優
  Ultra–short–term load, excellent performance
- 可制作成無感型
  Can be made into non–sensitized

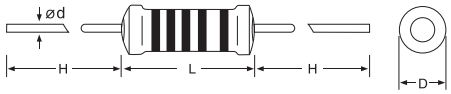
■ 訂貨方式 How To Order

KN	5W	P	12Ω	J
a	b	c	d	e

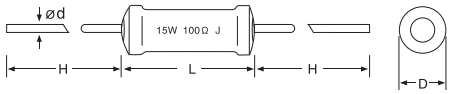
a: 名稱 Product code
b: 額定電力 Rated power
c: 形式 Type
d: 電阻值 Resistance value
e: 容許誤差 Tolerance

■ 構造 & 尺寸 Construction & Dimension

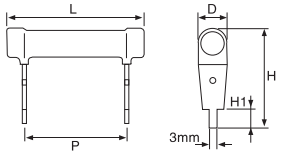
KNP & NKNP–Type
塗漆色環 Paint color ring



塗漆印字 Painted lettering



KNY & NKNY–Type
塗漆印字Painted lettering

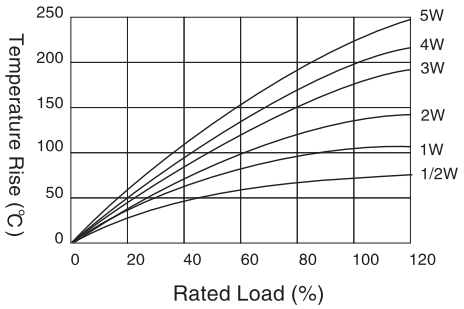


Type \ Size	L ± 0.5	D ± 0.6	H ± 3	ød ± 0.05	Resistance range KNP	Resistance range NKNP	Tolerance
1/4W,1/2WS	6.5	2.4	27	0.48	0.1Ω~30Ω	0.05~15Ω	F: ± 1% G: ± 2% J: ± 5%
1/2W,1WS	9.2	3.3	26	0.50	0.1Ω~82Ω	0.05~41Ω	
1W,2WS	11	4.5	28/35	0.65	0.01Ω~200Ω	0.01~50Ω	
2W,3WS	15	5.0	34	0.75	0.01Ω~500Ω	0.01~110Ω	
3W,5WS	18	6.0	33	0.75	0.01Ω~1KΩ	0.01~250Ω	
5W,7WS	25	8.0	35	0.75	0.01Ω~5KΩ	0.01~750Ω	

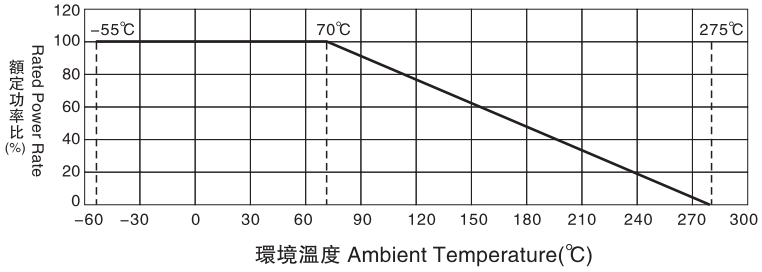
Type \ Size	L ± 1	D ± 0.6	H ± 3	ød ± 0.05	Resistance range KNP	Resistance range NKNP	Tolerance
7W	31	8	35	0.78	0.01~3KΩ	0.01~1.5KΩ	F: ± 1% G: ± 2% J: ± 5%
10W	41	8	35	0.78	0.01~8KΩ	0.01~4KΩ	
15W	52	8	35	0.78	0.01~10KΩ	0.01~5KΩ	
20W	61	8	35	0.78	0.01~12KΩ	0.01~6KΩ	
25W	61	8	35	0.78	0.01~12KΩ	0.01~6KΩ	
30W	70	8	35	0.78	0.01~15KΩ	0.01~7.5KΩ	

Type \ Size	L ± 0.5	D±0.6	P±3	H ± 0.5	H1±0.5	Resistance range KNP	Resistance range NKNP	Tolerance
5W	24	8	14	23	4.5	0.01Ω~1.5KΩ	0.01Ω~750Ω	F: ± 1% G: ± 2% J: ± 5%
7W	31	8	22	23	4.5	0.01Ω~3KΩ	0.01Ω~1.5KΩ	
10W	41	8	32	23	4.5	0.01Ω~8KΩ	0.01Ω~4KΩ	
15W	52	8	42	23	4.5	0.01Ω~10KΩ	0.01Ω~5KΩ	
20W	61	8	52	23	4.5	0.01Ω~12KΩ	0.01Ω~6KΩ	
30W	70	8	62	23	4.5	0.01Ω~15KΩ	0.01Ω~7.5KΩ	

■ 表面温升曲綫 Electrical Performance



■ 降功率曲綫 Derating Curve



■ 電氣性能 Characteristics

Characteristics	Specifications	Test methods
T.C.R	± 300PPM/℃	$\frac{R2-R1}{R1*(T2-T1)}$ *10⁶(PPM)/ ℃
Load life	Resistance change rate ± (5%R+0.05Ω) MAX With no evidence of mechanical damage.	Resistance change after 1000hrs operating at rated voltage with duty cycle of 1.5hrs ON 0.5hrs OFF at 70℃ ± 2℃.
Short time over load	± (2%R+0.05Ω)	2.5 times the rated voltage or maximum overload voltage (whichever is less), testing 5 seconds
Insulation resistance	500MΩ or more	V–block
Electric withstanding voltage	Resistance change ± (0.5%R ± 0.05Ω).No evidence of flashover mechanical damage, Arcing or insulation breakdown.	Resistance shall be clamped in the trough of a 90 metallic v–block and shall be test at specified in the above list for 60 seconds.
Solder ability	95% coverage minimum	Test temperatures of solder260 ± 5℃ Dwell time in solder:3 ± 0.5 sec
Join intensity	No terminal wire loosening and breakage shall occur.	Bending strength load 90° reciprocation twice

RoHs Compliant