KNP Wire Wound Resistor

Features

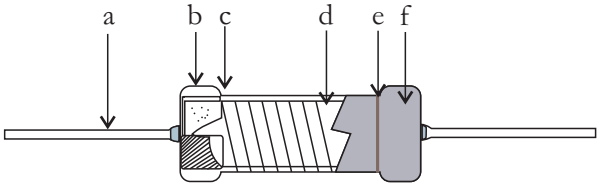
Ⅰ Flameproof and insulating coating designed to assure safe using by special non-flammable silicon-base.(Eqyuvakebt to UL94V-0)

Ⅱ Good heat-durability, low temperature coefficient , low noise, high overload power

Ⅲ High stability , long life

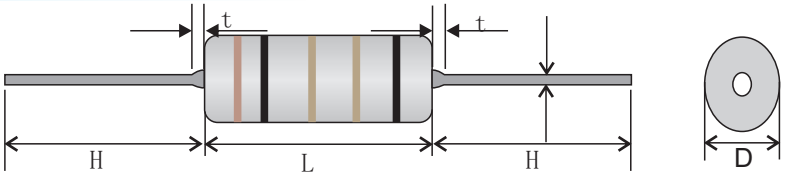
Ⅳ Products meet Eu-RoHS.

Construction



a	Lead wire
b	Cap
c	Ceramic base
d	Wire wound
e	Marking or color code
f	Insulation coat

Dimensions, Applications And Ratings



Type	Power		Resistance Range(Ω)	Dimensions(mm)					Max working Voltage	Dielectric with standing	T.C.R
	Standard	Small volume		L±1	t max	D±0.5	H±3	d±0.05			
KNP14	1/4W	1/2WS	0.05~1KΩ	6.5	1.5	2.50	28.0	0.60	√PR	300V	
KNP12	1/2W	1WS	0.05~2KΩ	9.0	2.0	3.50	28.0	0.60	√PR	350V	
KNP01	1W	2WS	0.05~3KΩ	11.0	2.5	4.00	28.0	0.70	√PR	500V	
KNP02	2W	3WS	0.05~5KΩ	16.0	2.5	5.0	33.0	0.70	√PR	500V	
KNP03	3W	4WS	0.05~5KΩ	18.0	2.5	6.0	33.0	0.70	√PR	700V	
KNP04	4W	5WS	0.05~10KΩ	18.0	2.5	6.0	33.0	0.70	√PR	700V	⩾10Ω ±30PPM/℃
KNP05	5W	6WS	0.05~15KΩ	19.0	2.5	7.0	33.0	0.75	√PR	700V	
KNP06	6W	7WS	0.05~33KΩ	22.0	2.5	7.50	33.0	0.75	√PR	700V	1~9.9Ω ±50PPM/℃
KNP07	7W	8WS	0.05~33KΩ	25.0	2.5	8.0	33.0	0.75	√PR	700V	
KNP08	8W	9WS	0.05~33KΩ	32.0	2.5	8.0	33.0	0.75	√PR	700V	0.1~0.99Ω 100PPM/℃
KNP09	9W	10WS	0.05~33KΩ	36.0	2.5	8.5	33.0	0.75	√PR	700V	
KNP10	10W	12WS	0.05~33KΩ	36.0	2.5	8.5	33.0	0.75	√PR	700V	0.05~0.099Ω 300PPM/℃
KNP12	12W	15WS	0.1~33KΩ	42.0	2.5	9.0	33.0	0.80	√PR	700V	
KNP15	15W	18WS	0.1~33KΩ	52.0	3.0	9.0	33.0	0.80	√PR	700V	0.01~0.049Ω 600PPM/℃
KNP18	18W	20WS	0.1~33KΩ	62.0	3.0	9.0	33.0	0.80	√PR	700V	
KNP20	20W	25WS	0.1~33KΩ	66.0	3.0	9.0	33.0	0.80	√PR	700V	
KNP25	25W	30WS	0.1~50KΩ	76.0	3.0	9.0	33.0	0.80	√PR	700V	
KNP30	30W	35WS	0.1~100KΩ	95.0	3.0	12.0	33.0	1.0	√PR	700V	
KNP35	35W	40WS	0.1~100KΩ	95.0	3.0	12.0	33.0	1.0	√PR	700V	
KNP40	40W	45WS	0.1~100KΩ	112.0	3.0	12.0	33.0	1.0	√PR	700V	

Reference Standards

JISC 5201-1

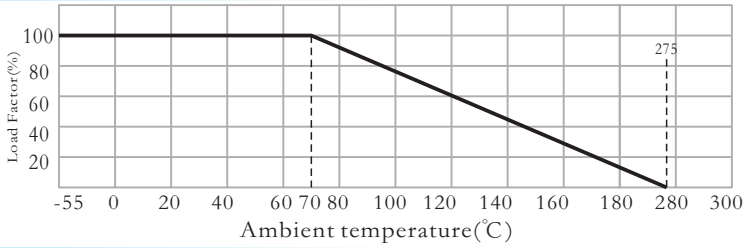
Ordering Information

Example:

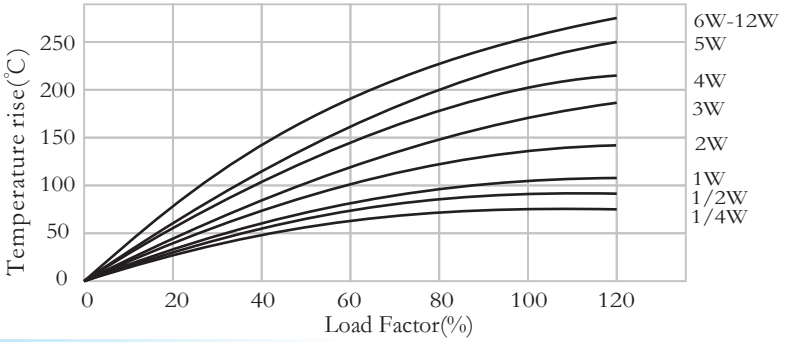
KNP	14	J	R100	S1
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	Resistance	Style

(1)Type: KNP SERIES
(2)Power Rating: 14=1/4W、12=1/2W、1=1W、2=2W、3=3W,…
(3)Tolerance: F=±1%, J=±5%
(4)Resistance Value:R100=0.1R、1R00=1Ω、10R0=10Ω、100R0=100Ω
(5)Style: S1=Standard, S2=Small volume

Derating Curve



Surface Temperature Rise



Performance

Test Items	Performance Requirements	Test Methods(JIS C 5201-1)
Resistance	Within specified tolerance	Measuring points are 10mm from the end cap
T.C.R.	Within specified T.C.R	Room temperature+100℃
Short time overload	±(1%R+0.05Ω)	10 times the rated power for 5 seconds
Load life	±(5%R+0.1Ω)	Rated voltage at 70℃ for 1,000 hours 1.5hr ON/0.5hr OFF Cycles
Load life in humidity	±(5%R+0.1Ω)	Rated voltage at 40℃,95%RH for 1,000 hours
Moisture resistance	±(1%R+0.05Ω)	40℃,95%RH for 240 hours
Temperature cycle	±(1%R+0.05Ω)	5 cycles for -25℃ (30min);room temp.(30min) ~+85℃ (30min)room temp.(30min)
Solderability	95%(min)coverage	Temp. of solder 245℃ ± 5℃ duration of immersion3s ± 0.5s
Resistance to soldering heat	±(1%R+0.05Ω)	260℃ ± 5℃ for 10 seconds 350℃ ± 10℃ for 3.5 seconds
Insulation resistance	>1,000MΩ	500V insulation test 1min.
Flameproof	No obvious flaming or arcing	AC voltage of 2,4,6,8,16,32 times the power rating for 1min.(V ≤4times max, working voltage)