Wirewound Resistor(KNP)

●特点 Features:

1、耐热性好、温度系数小、噪声低、负荷功率大。
Good heat-durability, low temperature coefficient, low noise, high overload Power.

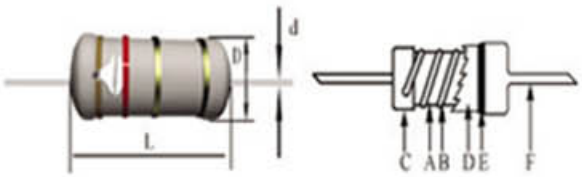
2、使用环境温度 Operating ambient temperature：-55℃～+275℃。

3、表面涂不燃性面漆，1/4W~5W用色环标识阻值，涂漆颜色为灰白色；6W以上用印字标识阻值，涂漆颜色为绿色或灰色。
Surface is nonflammable, the 1/4W～5W coating is gray white and indicate the resistance value by color ring, the 6W or over will indicate the resistance value by lettering and coating is green.

4、阻值误差 Resistance tolerance：±1%、±2%、±5%、±10%。

5、可根据客户要求制作符合安装尺寸要求的产品（包括小型化产品）。we can according to customers'requirement to make the products meeting the mounting dimensions(including miniature products).

●产品结构图 Construction Drawing:

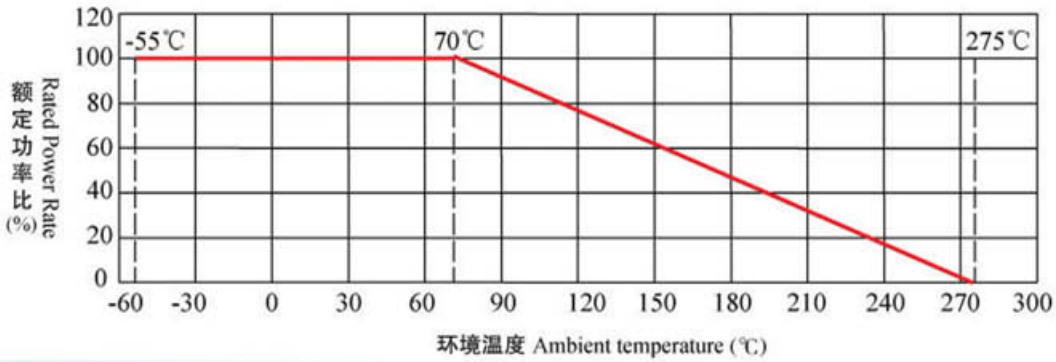


A、高热传导瓷芯 High heat exchanged Ceramic core.
B、镍铬或康铜合金丝 Nickel Chrome or nickel and copper alloy.
C、铁帽 Iron Cap.
D、硅树脂涂料 Silicon resin coating.
E、色环 Color Ring.
F、镀锡铜线 Tinned copper lead wire

●规格尺寸及耐压性能 Dimensions and Voltage Performance：

料号 Part No.	功率 Power	阻值范围 Resistance range	尺寸 Dimensions(mm)			最大工作电压 Max. working voltage	最大负荷电压 Max. overload voltage	最高绝缘电压 Max. insulation voltage
			L±1	D±0.5	d±0.05			
KNR014	1/4W	0R5~750R	6.0	2.3	0.52	150V	300V	250V
KNR012	1/2W	0R01~1K5	9.0	3.2	0.58	150V	400V	250V
KNR01B	1W	0R01~1K5	11.0	4.0	0.75	150V	400V	250V
KNR02B	2W	0R01~3K3	15.0	5.0	0.75	250V	400V	350V
KNR03B	3W	0R01~4K7	18.0	6.0	0.75	350V	600V	500V
KNR04B	4W	0R01~8K2	18.0	6.0	0.75	350V	600V	500V
KNR05B	5W	0R01~8K2	24.0	8.0	0.75	350V	600V	500V
KNR06B	6W	0R02~33K	24.0	8.0	0.75	500V	600V	750V
KNR07B	7W	0R03~33K	31.0	8.0	0.75	500V	600V	750V
KNR08B	8W	0R03~33K	36.0	8.0	0.75	500V	600V	750V
KNR09B	9W	0R04~33K	36.0	8.0	0.75	750V	800V	1000V
KNR10B	10W	0R04~33K	42.0	8.0	0.75	750V	800V	1000V

●额定功率递减图 Rated Power Derating Curve：



●性能测试 Performance Test：

测试项目 Test Item	测试条件 Test Condition	性能 Performance
温度系数 Temperature coefficient	在常温及常温+100℃时分别测量电阻值并计算每度的阻值变化率。Test the resistance value at normal temperature and normal temperature added 100℃, calculate per ℃ resistance value change rate.	±250ppm/℃
短时间过负荷 Short time overload	1/4～4W施加5倍额定功率,5～10W施加10倍额定功率的电压或最高负荷电压(取较小者)5秒 。1/4~4W:According 5 times rated power to account the voltage, 5~10W: According 10 times rated power to account the voltage or max. overload voltage (get the lower) for 5 seconds.	ΔR ≤ ±（2%R_0+0.05Ω）
断续过负荷 Pulse overload	4倍额定电压或最高断续负荷电压(取较小者)测试1秒,停止25秒,循环10000±200次。At 4× rated voltage or Max. pulse overload voltage (get the Lower) cycle 10000±200 times (1 second on, 25 seconds off)。	ΔR ≤ ±（1%R_0+0.05Ω）
耐焊接热 Resistance to soldering heat	在350±10℃的锡炉中浸入2～3秒。 Immerge into the 350±10℃ tin stove for 2~3 seconds.	ΔR ≤ ± 1%R_0
可焊性 Solderability	在245±3℃锡炉中浸入2～3秒。 Immerge into the 245±3℃ tin stove for 2~3 seconds.	焊锡面积覆盖率95%以上 The soldering area is over 95%
温度循环 Temperature cycling	在-55℃时放置30分钟，然后在+25℃时放置10～15分钟，然后再在+275℃时放置30分钟，然后再在+25℃时放置10～15分钟，共循环5次。At -55℃ for 30 min, then at +25℃ for 10~15 min, then at +275℃ for 30 min, then at +25℃ for 10~15 min, total 5 cycles.	ΔR ≤ ±（1%R_0+0.05Ω）
耐湿负荷寿命 Load life in humidity	在温度为40±2℃，相对湿度为90～95%的恒温恒湿箱中，施加额定电压或最大工作电压（取较小者）共1000小时（通1.5小时,断0.5小时）。Overload rated voltage or Max. working voltage (get the lower) for 1000 hours (1.5 hours on and half-hour off) at the 40±2℃ and 90~95% relative humidity.	ΔR ≤ ±（5%R_0+0.05Ω）
耐温负荷寿命 Load life in heat	在70±2℃恒温恒湿箱中施加额定电压或最大工作电压（取较小者）1000小时（通1.5小时,断0.5小时）。Overload rated voltage or Max. working voltage (get the lower) for 1000 hours (1.5 hours on and half-hour off) at the 70±2℃.	ΔR ≤ ±（5%R_0+0.05Ω）
难燃性 Nonflammability	分别按5、10、16倍额定功率加交流负荷5分钟。Respectively load AC voltage by 5, 10, 16 times rated power for 5 mninutes.	不可有明显火焰 No visible flame

●料号规则 Part No. Regulation：

KNR	01B	J	0	T520	100R0
产品名称 Product Name	功率 Power	精度 Tol.	特殊码 Special Code	成型 Forming	阻值 Ohm
绕线固定电阻器 Wirewound Fixed Resistors	014 = 1/4W　012 = 1/2W 01B = 1W　02B = 2W 03B = 3W　04B = 4W 05B = 5W　06B = 6W 07B = 7W　08B = 8W 09B = 9W　10B = 10W	F = ±1% G = ±2% J = ±5% K = ±10%		T520 = T52 T710 = T71 M001 = M F001 = F B001 = B	0R100 = 0.1Ω 0R220 = 0.22Ω 10R00 = 10Ω 100R0 = 100Ω 10K00 = 10KΩ