

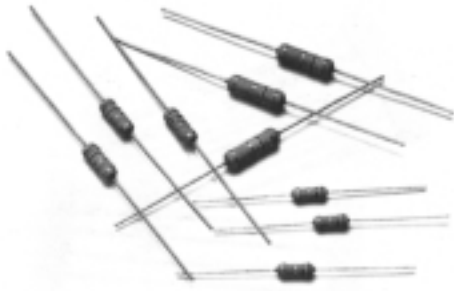
Wirewound Resistors

JARO COMPONENTS, INC. LEADED RESISTORS

FLAME-PROOF TYPE

Standard Type [KNP Series],

Non-Inductive Type [NKN Series]



FEATURES

Industry's Lowest Cost

Delivery From Stock in Bulk Taped, and Strip Pack

Exceptional Long-term Stability

Exceeds Carbon Comp MIL-R-11 Performance

Resistance Tolerance: $\pm 5\%$

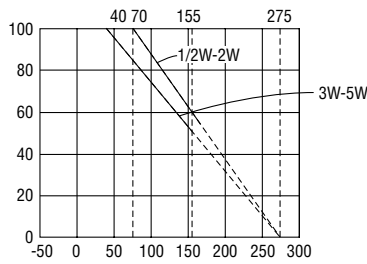
Variety of Packaging—Bulk, Strip Pack, 52mm Tape and Reel, Cut and Formed, or Radial Panasert/Aviisert

INTRODUCTION

- The resistor is fabricated using a suitable fiberglass or ceramic core with the resistance wire securely crimped to the terminals.
- Small in size comparatively than other kinds of resistors.
- Electrical and Mechanical stability and high reliability.
- The KNP/NKN series are coated with layers of green color flame-proof lacquer. The resistors meet overload tests in accordance with UL specification #1412 without producing a fire hazard.

DERATING CURVE

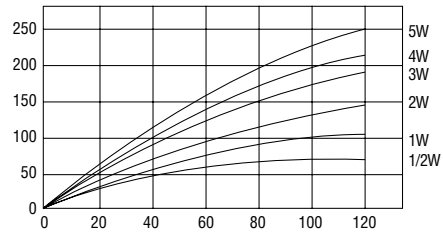
Rated Load (%)



Ambient Temperature (°C)

HOT-SPOT TEMPERATURE

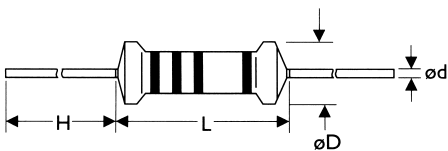
Temperature Rise (°C)



Rated Load (%)

Unit : mm

DIMENSIONS



| STYLE | | DIMENSION | | | |
|--------|-----------|-----------|---------|--------|----------|
| Normal | Miniature | L | øD | H | ød |
| KNP05 | KNP10M | 9.0±1.0 | 3.5±0.5 | 26±2.0 | 0.6±0.05 |
| KNP10 | KNP20M | 11.5±1.0 | 4.5±0.5 | 35±2.0 | 0.8±0.05 |
| KNP20 | KNP30M | 15.5±1.0 | 5.0±0.5 | 33±2.0 | 0.8±0.05 |
| KNP30 | — | 17.5±1.0 | 6.0±0.5 | 32±2.0 | 0.8±0.05 |
| KNP40 | KNP50M | 17.5±1.0 | 6.0±0.5 | 32±2.0 | 0.8±0.05 |
| KNP50 | — | 24.5±1.0 | 8.0±0.5 | 38±2.0 | 0.8±0.05 |

KNP/NKN Series

ELECTRICAL CHARACTERISTICS

| STYLE | KNP05 | KNP10M | KNP10 | KNP20M | KNP20 | KNP30M | KNP30 | KNP40 | KNP50M | KNP50 |
|---------------------------------|-----------------|--------|-----------|--------|-----------|--------|-----------|-------|----------|-------|
| Power Rating | 1/2W | 1W | | 2W | | 3W | | 4W | 5W | |
| Operating Temp. Range | -55°C to +155°C | | | | | | | | | |
| Dielectric Withstanding Voltage | 300V | 300V | 400V | 400V | 400V | 400V | 400V | 400V | 400V | 400V |
| Value Range ±5% | 0.1Ω-47Ω | | 0.1Ω-100Ω | | 0.1Ω-330Ω | | 0.1Ω-560Ω | | 0.1Ω-1KΩ | |
| Temperature Coefficient | ±400ppm/°C | | | | | | | | | |

* 1. Standard resistance is as the above list, below or over this resistance on request.

* 2. Non-Inductive type up to 50Ω only.

ENVIRONMENTAL CHARACTERISTICS

| PERFORMANCE TEST | TEST METHOD | APPRAISE |
|---------------------------------------|--|--|
| Short Time Overload | JIS-C-5202 5.5 | 2.5 Times RCWV for 5 Seconds ±(2%+0.05Ω) |
| Dielectric Withstanding Voltage | JIS-C-5202 5.7 | in V-Block for 60 Seconds by Type |
| Temperature Coefficient of Resistance | JIS-C-5202 5.2 | -55°C to +155°C ±400ppm/°C |
| Insulation Resistance | JIS-C-5202 5.6 | in V-Block >100MΩ |
| Solderability | JIS-C-5202 6.5 | 235°C for 5±0.5 Seconds 95% Min. Coverage |
| Resistance to Solvent | JIS-C-5202 6.9 | Trichroethane for 1 Min. with Ultrasonic No Deterioration of Coatings and Markings |
| Terminal Strength | Direct load for 10 Sec. in The Direction of The Terminal Leads | ≥2.5kg (24.5N) |
| Load Life in Humidity | JIS-C-5202 7.9 | 40±2°C, 90-95% RH at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off) ±(3%+0.05Ω) |
| Load Life | JIS-C-5202 7.10 | 70°C at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off) ±(3%+0.05Ω) |

* Rated Continuous Working Voltage (RCWV)=√Power Rating x Resistance Value