

# KNP SERIES

## WIRE WOUND RESISTOR

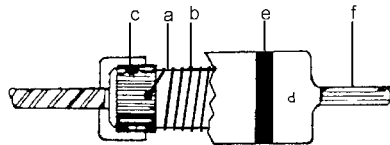


STANDARD TYPE **KNP**(1/2W, 1W, 2W, 3W, 4W, 5W)

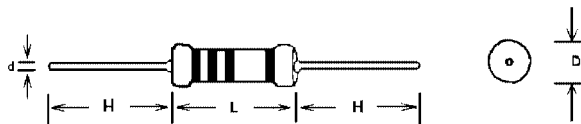
### FEATURES:

- SPEC PER IEC 115-4, MIL-11804.
- STANDARD TOLERANCE:  $\pm 1\%$ (F),  $\pm 2\%$ (G) &  $\pm 5\%$ (J).
- NON FLAMMABLE.
- LOW NOISE, LOW T.C.R.
- HIGH RELIABILITY.

### CONSTRUCTION



- A) CERAMIC CORE (HIGH CONDUCTIVITY)
- B) HIGH STABLE RESISTANCE WIRE
- C) END CAP (TINNED IRON)
- D) NONFLAME LACQUER (SOLVENT-PROOF, RESISTIVE TO HEAT & HUMIDITY)
- E) COLOR CODE PER IEC & EIA STANDARDS (4 RINGS)
- F) TINNED COPPER WIRE (RELIABLE SOLDERABILITY)



### DIMENSIONS:

TYPE NO.	DIMENSIONS				
	WATT	L $\pm 1.5$ mm	D $\pm 0.5$ mm	d $\pm 0.05$ mm	H $\pm 3.0$ mm
KNP050	1/2W	9	3.3	0.6	28
KNP100	1W	11	4.3	0.8	35
KNP200	2W	15	4.8	0.8	35
KNP300	3W	15	5.3	0.8	38
KNP400	4W	18	5.8	0.8	38
KNP500	5W	25	7.8	0.8	38

SPECIAL SIZES, VALUES AND SPECIFICATIONS NOT LISTED AVAILABLE ON SPECIAL ORDER.

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### CHARACTERISTICS:

POWER RATED ( 70°C )		KNP050	KNP100	KNP200	KNP300	KNP400	KNP500
		1/2W	1W	2W	3W	4W	5W
ITEM							
MAX WORKING VOLTAGE		350V	350V	350V	500V	500V	500V
MAX OVERLOAD VOLTAGE		600V	700V	700V	1000V	1000V	1000V
MAX INTERMITTENCE OVERLOAD VOLTAGE		350V	600V	600V	1000V	1500V	1500V
DIELECTRIC WITHSTANDING VOLTAGE		350V	600V	600V	1000V	1000V	1000V
RESISTANCE TOLERANCE		± 1%(F) ± 2%(G) ± 5%(J)	± 1%(F) ± 2%(G) ± 5%(J)	± 1%(F) ± 2%(G) ± 5%(J)	± 1%(F) ± 2%(G) ± 5%(J)	± 1%(F) ± 2%(G) ± 5%(J)	± 1%(F) ± 2%(G) ± 5%(J)
RESISTANCE RANGE	MIN	0.1R	0.1R	0.1R	0.1R	0.1R	0.1R
	MAX	100R	470R	560R	820R	820R	1200R

NOTE: RATED CONTINUOUS WORKING VOLTAGE (RCWV) SHALL BE DETERMINED FROM  
 $RCWV = \sqrt{\text{POWER RATING} \times \text{RESISTANCE VALUE}}$

### PERFORMANCE SPECIFICATIONS :

CHARACTERISTIC	SPECIFICATIONS			TEST METHODS
DC RESISTANCE	J( ± 5%)			AT 25°C
TEMPERATURE COEFFICIENT	0R1-1R	1R1-10R	OVER 11R	RESISTANCE VALUE AT ROOM TEMPERATURE AND ROOM TEMPERATURE + 100°C
	± 500PPM/°C	± 200PPM/°C	± 100PPM/°C	
SHORT TIME OVER LOAD	± (1% ± 0.05R)			2.5 TIME RCWV 5 SEC.
INSULATION RESISTANCE	1000MOHM MIN.			V-BLOCK
LOAD LIFE	± (5% ± 0.05R)			70°C , 1000 HRS.
LOAD LIFE IN HUMIDITY	± (5% ± 0.05R)			40°C , 90-95%RH, 1000 HRS.
TEMPERATURE CYCLING	± (1% ± 0.05R)			-25°C / 105°C , 5 CYCLING.
RESISTANCE TO SOLDERING HEAT	± (1% ± 0.05R)			350 °C , 3.5 SEC. 260 °C , 10 SEC.
SOLDERABILITY	95% COVERAGE MINIMUM			235 °C , 2 SEC.