

Data Sheet

Customer:**Product:** Wire Wound Leaded Resistors – KNQ Series**Sizes.:** 0932/1145/1550/1760/2480**Issued Date:** 29-Aug-25**Edition:** REV.A2

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Wire Wound Leded Resistors

Features

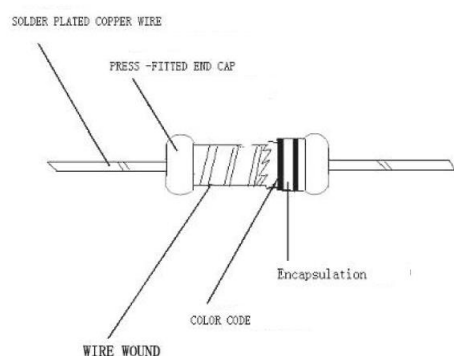
- Low resistance value
- Flame retardant coating
- Standard tolerance $\pm 5\%$
- RoHS compliant / lead-free available



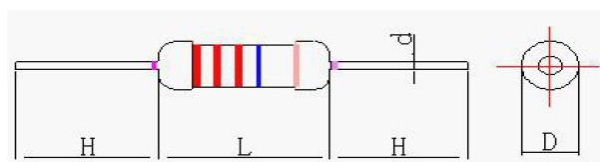
Applications

- suitable for use in a variety of military electronics power, sampling, start, oscillation circuit, etc.

Construction



Dimensions



Dimensions

Unit: mm

Type	L	D	H	d
KNQ0932	9.0 $\pm$ 0.5	3.5 $\pm$ 0.5	26 $\pm$ 2.0	0.56 $\pm$ 0.05
KNQ1145	11.5 $\pm$ 1.0	4.5 $\pm$ 0.5	34 $\pm$ 2.0	0.65 $\pm$ 0.05
KNQ1550	15.0 $\pm$ 1.0	5.0 $\pm$ 0.5	33 $\pm$ 2.0	0.70 $\pm$ 0.05
KNQ1760	17.0 $\pm$ 1.0	6.0 $\pm$ 0.5	32 $\pm$ 2.0	0.70 $\pm$ 0.05
KNQ2480	24.0 $\pm$ 1.0	8.0 $\pm$ 0.5	28 $\pm$ 2.0	0.70 $\pm$ 0.05

Part Numbering

KNQ	0932	J	A	G	U	1000
Product Type	Dimensions (L×D)	Resistance Tolerance	Packaging Code	TCR (PPM/°C)	Power Rating	Resistance
	0932: 9.0x3.5 1145: 11.5x4.5 1550: 15.0x5.0 1760: 17.0x6.0	J: $\pm 5\%$	A: Ammo B: Bulk	G: ≤ 300	U: 1/2W T: 1W S: 2W R: 3W D: 5W	R100: 0.1 Ω 0010: 1 Ω 0100: 10 Ω 1000: 100 Ω

Wire Wound Ledded Resistors

Standard Electrical Specifications

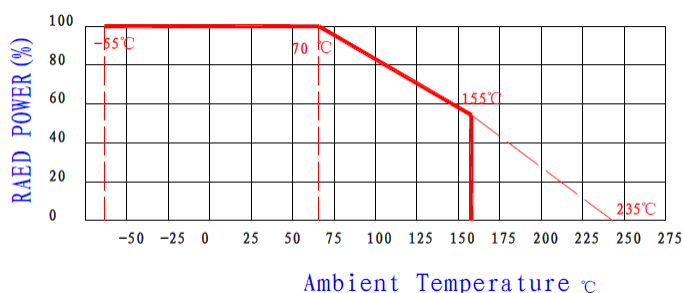
Item Type	Power Rating at 70°C	Operating Temp. Range	Dielectric Withstanding Voltage	Resistance Range	TCR (PPM/°C)
				±5%	
0932	1/2W	-55 ~ +155°C	300V	0.1Ω~300Ω	≤ 300
1145	1W		350V	0.1Ω~500Ω	≤ 300
1550	2W		350V	0.1Ω~1KΩ	≤ 300
1760	3W		500V	0.1Ω~1.5KΩ	≤ 300
2480	5W		500V	0.1Ω~2.5KΩ	≤ 300

High Power Rating Electrical Specifications

Item Type	Power Rating at 70°C	Operating Temp. Range	Dielectric Withstanding Voltage	Resistance Range	TCR (PPM/°C)
				±5%	
0932	1W	-55 ~ +155°C	300V	0.1Ω~500Ω	≤ 300
1145	2W		350V	0.1Ω~500Ω	≤ 300
1550	3W		350V	0.1Ω~1KΩ	≤ 300
1760	5W		500V	0.1Ω~1.5KΩ	≤ 300

■ Resistor body color : Grey

Derating Curve



Rated Voltage

Rated voltage is defined as the DC or AC (effective Value at commercial frequency example 50 C/S, 60 C/S) ,

Voltage when rated power is applied and can be calculated By the following

$$V = \sqrt{P \cdot R}$$

When the calculated rated voltage exceeds the Maximum usable voltage flue shown in CHART, the Maximum usable voltage is defined as the voltage According to the power-decreasing curve shown in CHART.

Wire Wound Ledded Resistors

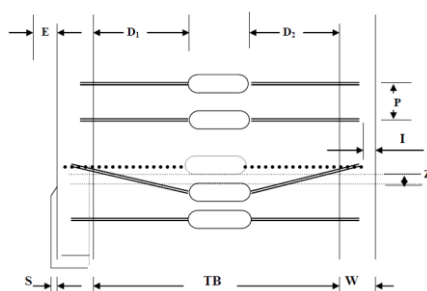
Environmental Characteristics

Item	Requirement	Test Method
Short Time Overload	$\leq \pm(2\%R+0.05\Omega)$ Shall be no mechanical breakage	AC or DC voltage 2.5 times the rated voltage for 5 seconds
Endurance	$\leq \pm(5\%R+0.05\Omega)$ Shall be no mechanical breakage	70°C, apply rated voltage for 1000 hrs with 1 hrs "ON" and 0.5 hrs "OFF"
Damp Heat with Load	$\leq \pm(5\%R+0.1\Omega)$ Shall be no mechanical breakage	40±2°C, 90~95% R.H. apply rated voltage for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"
Solderability	95% min. Coverage	260±5°C for 5±0.5 seconds
Voltage Endurance	No breakdown or flashover	Place the resistor in the "V" slot and hold for one minute, as shown in specifications
Temperature Coefficient of Resistance (T.C.R)	$\leq 300\text{PPM}$	$\text{PPM}/^\circ\text{C} = \frac{R - R_0}{R_0} \times \frac{10^5}{T - T_0}$ R = Measured resistance (Ω) at T Ro = Measured resistance (Ω) at To T = Measured test temperature(°C) To = Measured base temperature(°C)
Resistance To Soldering Heat	$\leq \pm(2\%R+0.05\Omega)$ Shall be no mechanical breakage	Dip the lead in to a solder bath having a temperature of 350 ±10°C up to 3±0.05mm from the body of the resistor and hold it for 3.5±0.5seconds leave the resistor ,at room temperature 1 hours after ,then Measure
Terminal Strength	Shall be no mechanical breakage	Pull test apply 3.5KG force to the lead in the direction of lead axis for 30±5 seconds
Vibration	Shall be no mechanical breakage	set a resistor at the vibration table and vibrate 10HZ—55HZ 10HZ/s. with 1.5mm amplitude in 1 min. when the change of frequency shall be completed uniformly. the vibration shall apply to 3 directions, vertical and horizontal to the axis of resistor each for 3h.
Endurance at upper-limit temperature	$\leq \pm(5\%R+0.1\Omega)$	At 125°C temperature, duration of 1000h

■Storage Temperature: 30±5°C ; Humidity: < 65% RH

■Shelf life: 2 years Max

Taping/Packing Specifications

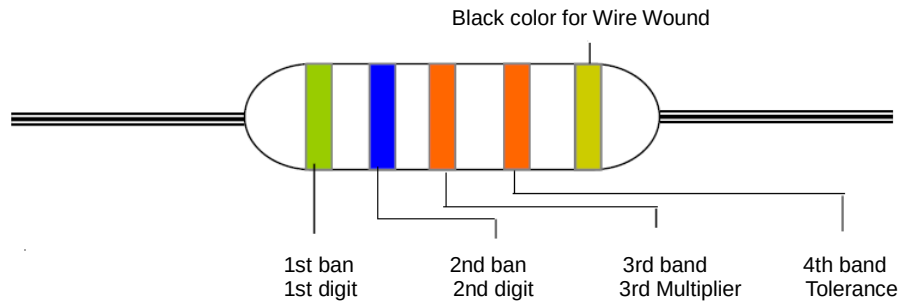


Unit: mm

Packaging Type	Packing Methods								Ammo Packing
	TB	P	W	D1-D2 MAX	E MAX	Z MAX	S MAX	I MAX	Qty
0932	52±1.5	5±0.5	6±0.5	0.8	0	1.2	0.8	3.2	2,500
1145	73±1.5	5±0.5	6±0.5	0.8	0	1.4	0.8	3.2	1,000
1550	73±1.5	10±0.5	6±0.5	0.8	0	1.4	0.8	3.2	1,000
1760	73±1.5	10±0.5	6±0.5	0.8	0	1.4	0.8	3.2	500
2480	73±1.5	10±0.5	6±0.5	0.8	0	1.4	0.8	3.2	250

Wire Wound Leaded Resistors

■ Marking



Color	Digit	Multiplier	Tolerance	
Without	-	-	-	-
Silver	-	10^{-2}	-	-
Gold	-	10^{-1}	±5.0%	J
Black	0	10^0	-	-
Brown	1	10^1	±1.0%	F
Red	2	10^2	-	-
Orange	3	10^3	-	-
Yellow	4	10^4	-	-
Green	5	10^5	-	-
Blue	6	10^6	-	-
Violet	7	10^7	-	-
Grey	8	10^8	-	-
White	9	10^9	-	-

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version A1	01-Apr-2025		-Add Storage conditions and Shelf life.
Version A2	29-Aug-2025		-Modify KNQ1145 Dimensions H specifications and Packing Methods TB specifications.