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HONG KONG RESISTORS MANUFACTORY

(wholly owned by Hong Kong Resistors Manufactory International Ltd.)

AN ISO 9001:2015 CERTIFIED MANUFACTURER

AN ISO 45001: 2018 MANUFACTURER

AN ISO 14001: 2015 MANUFACTURER

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DATASHEET

Name of Product: WIREWOUND RESISTOR –TAPING(SMALL SIZE)

Sales Executive: _____

Date: _____

制造 Prepared by	品质 Quality by	业务 Sales by	核准 Authorized by
客户 customer approval	客户 customer approval	客户 customer approval	客户 customer approval

Spec. No. WRTBS 2022

Rev. No.: 2022 Sep

PRODUCT : WIREWOUND RESISTOR	TYPE : 500S
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1. APPLICABLE SCOPE :

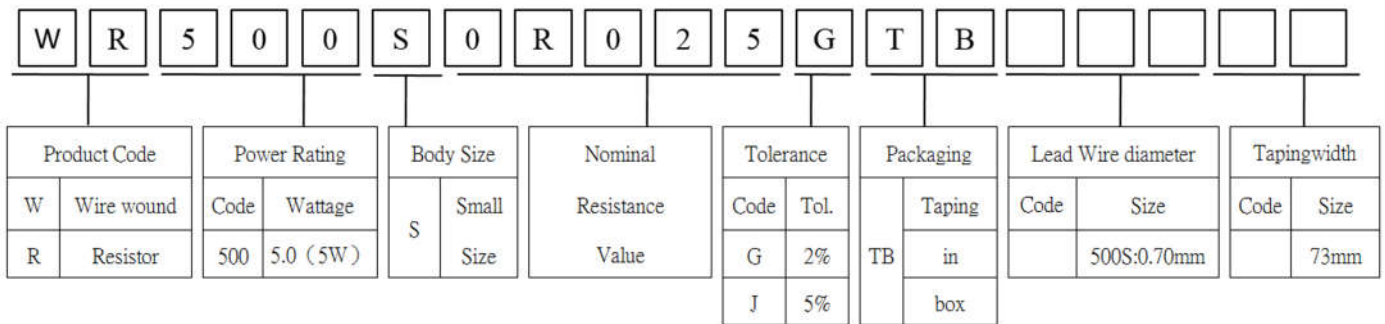
1.1 This specification is for use in WIREWOUND RESISTORS

1.2 RoHS and REACH compliant product

2. PART NUMBER

It is composed of description, rated wattage , nominal resistance value , tolerance and packaging.

2.1 Make Up :



2.2 Explanation :

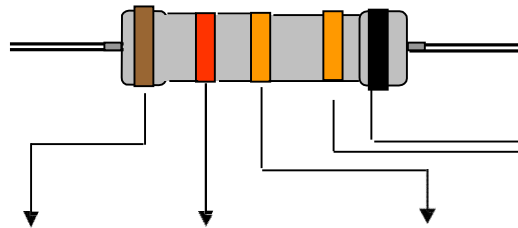
<u>Part Number</u>	<u>Description</u>
WR 500S 0R025 G TB	Wire wound Resistor , 5W, small size, 25mΩ, +/-2%, tape in box, Lead Wire diameter: d=0.70mm, Taping width=73mm.

PRODUCT: WIREWOUND RESISTOR	TYPE: WR 500S
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2.3 Color code indication

Fixed resistors of which the nominal resistance value and tolerance are indicated by color codes as per Table 1 :

TABLE - 1



COLOR	1 ST DIGIT	2 ND DIGIT	MULTIPLIER	TOLERANCE	IDENTIFICATION
BLACK	0	0	1		WIREWOUND RESISTOR
BROWN	1	1	10		
RED	2	2	100	G (±2%)	
ORANGE	3	3	1,000		
YELLOW	4	4	10,000		
GREEN	5	5	100,000		
BLUE	6	6	1000,000		
VIOLET	7	7	10,000,000		
GREY	8	8			
WHITE	9	9			
GOLD			0.1	J (±5%)	
SILVER			0.01		

PRODUCT : WIREWOUND RESISTOR

TYPE : WR 500S

3. DIMENSIONS:

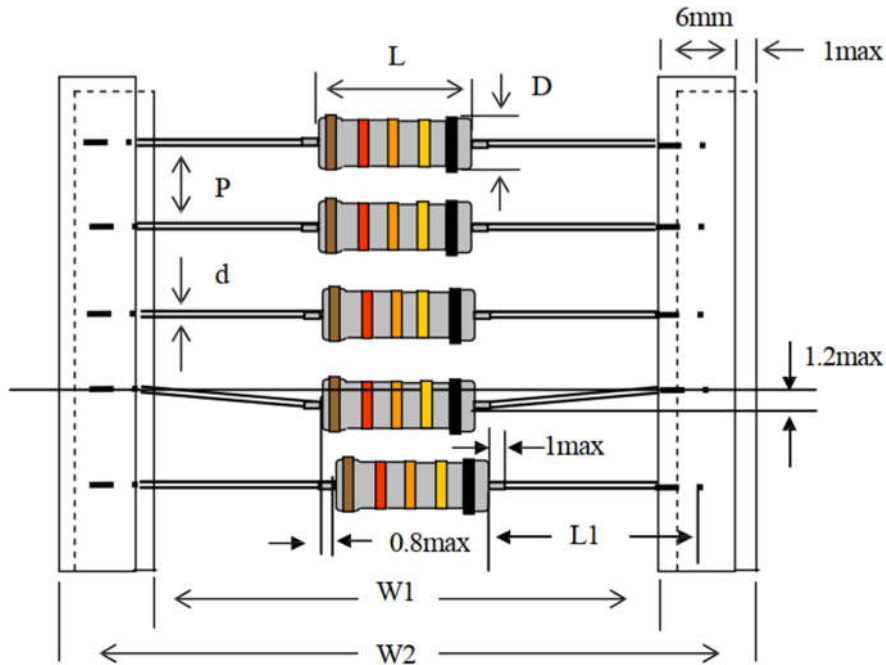


TABLE - 2

Unit : mm

TYPE	L	D	d	P	W1	W2	L1
WR500S	17.0 ± 1.5	6.0 ± 0.5	0.70 ± 0.05	10 ± 0.5	73 ± 1.5	85 ± 1.5	32 ± 2

PRODUCT: WIREWOUND RESISTOR	TYPE: WR 500S
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4. SPECIFICATIONS

TABLE - 3

DESCRIPTION	WR-500S
STANDARD RESISTANCE VALUE RANGE	0.025Ω
POWER RATING AT 70°C	5W
*MAX WORKING VOLTAGE	0.35V
*MAX OVERLOAD VOLTAGE	0.88V
OPERATING TEMPERATURE RANGE	-55°C ~ +255°C
TEMPERATURE COEFFICIENT	±500PPM
TEMPERATURE CYCLING	±(2%R+0.05Ω)
INSULATION RESISTANCE	MIN. 1,000 MΩ
HUMIDITY	±(5% R+0.05Ω)
SHORT-TIME OVERLOAD	±(2%R+0.05Ω)
SOLDERABILITY	MIN. 95% COVERED
VIBRATION	±(1% R+0.05Ω)
LOAD LIFE	±(5% R+0.05Ω)

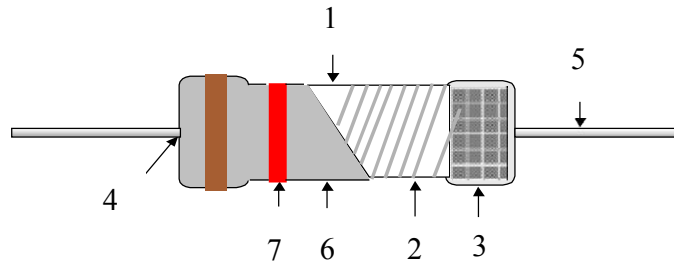
* The working voltage is calculated based on the resistance value following the formula of $V=\sqrt{P \cdot R}$ or to its maximum extent as indicated above

* The overload voltage is calculated based on the resistance value following the formula of $V= 2.5 \cdot \sqrt{P \cdot R}$ or to its maximum extent as indicated above

PRODUCT: WIREWOUND RESISTOR

TYPE: WR 500S

5. STRUCTURAL DIAGRAM



(1) CORE	WHITE CERAMIC ROD
(2) RESISTANCE FILM	VALUED RESISTANCE WIRE
(3) TERMINAL	TINNED IRON CAP
(4) CONNECTION	ELECTRIC WELDING
(5) LEAD WIRE	SOLDERED OR TINNED ANNEALED COPPER WIRE
(6) FINISHING PAINTING	FLAMEPROOF SILICON PAINT
(7) INDICATION	COLOR CODE INK

PRODUCT : WIREWOUND RESISTOR	TYPE : WR 500S
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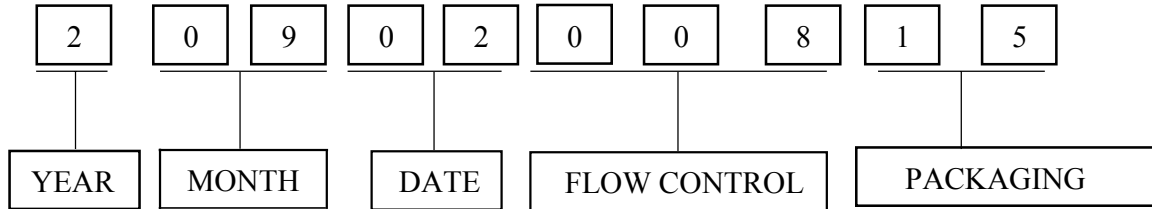
6. CHARACTERISTICS

TABLE – 4

DC RESISTANCE VALUE	TEST METHOD MIL-STD-202 ITEM 303	VOLTAGE AS TABLE -4. TEMPERATURE 25 ±2°C . AQL 0.25%.
VOLTAGE WITHSTAND	TEST METHOD MIL-STD-202 ITEM 301	V-BLOCK METHOD. VOLTAGE AS TABLE -3 x1.42 , 1 MIN. AQL 1%.
SHORT TIME OVERLOAD	TEST METHOD JIS C 5202 ITEM 5.5	RATED VOLTAGE × 2.5 TIMES OR MAX.WORKINGVOLTAGE × 2 TIMES. ABOVE TEST 5 SEC. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(2%R+0.05 Ω).
TERMINAL STRENGTH	TEST METHOD MIL-STD-202 ITEM 211	TENSILE STRENGTH : 1KG TENSIONAL STRENGTH : 180°, 2 CYCLES. BENDING STRENGTH : 0.5KG, 2 TIMES. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(0.5%R+0.05 Ω).
SOLDERABILITY OF TERMINAL	TEST METHOD MIL-STD-202 ITEM 210	260±5°C 10±1SEC. AFTER TESTING, LEAVE FOR 3 HOURS. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(1%R+0.05 Ω).
TEMPERATURE CYCLE	TEST METHOD MIL-STD-202 ITEM 107	LOW SIDE TEMPERATURE : -55°C±3°C 30MIN. ROOM TEMPERATURE : 10-15MIN. HIGH SIDE TEMPERATURE :+125°C±3°C 30MIN. ROOM TEMPERATURE : 10-15MIN. ABOVE TEST 5 CYCLES AFTER LAST CYCLE, LEAVE FOR 1-3 HOURS. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(2%R+0.05 Ω).
VIBRATION WITHSTAND	TEST METHOD MIL-STD-202 ITEM 204	X, Y, Z-EACH DIRECTION 2 HOURS. AMPLITUDE 0.75MM. RANGE : 10HZ ~ 500HZ. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(1%R+0.05 Ω).
LOAD LIFE	TEST METHOD MIL-STD-202 ITEM 108	70°±2°C. 1000 HOURS RATED VOLTAGE (1.5 HOURS ON, 0.5 HOUR OFF). THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(5%R+0.05 Ω).
RESISTANCE TEMPERATURE COEFFICIENT	TEST METHOD MIL-STD-202 ITEM 304	THE RESISTANCE VALUE CHANGE RATE SHALL BE AS TABLE – 3.
LOAD LIFE IN HUMIDITY	TEST METHOD MIL-STD-202 ITEM 103	THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(5%R+0.05 Ω).

PRODUCT: WIREWOUND RESISTOR	TYPE: WR 500S
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7. LOT NO. (CodingSystem)



8. PACKING DATA

TABLE – 5

TYPE	PER BOX	PER CARTON	INNER BOX			EXPORT CARTON		
			L	W	H	L	W	H
WR500S	500PCS	5,000PCS	255mm	100mm	90mm	515mm	267mm	203mm

