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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

Sales Executive:_____ Date:_____

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

Spec. No. WRTB 2023

Rev. No.: 2023 Aug

PRODUCT : WIREWOUND RESISTOR	TYPE : WR 100/200

1. APPLICABLE SCOPE :

1.1 This specification is for use in WIREWOUND RESISTORS

1.2 Characteristics and specifications are according to those of :
JIS C 5201

1.3 RoHS and REACH compliantproduct

2. PART NUMBER

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

2.1 Make Up:

W	R	1	0	0	1	0	0	R	J	T	B	0	7	5	7	3

Product Code	
W	Wire wound
R	Resistor

Power Rating	
Code	Wattage
100	1.0（1W）
200	2.0（2W）

Nominal Resistance Value

Tolerance	
Code	Tol.
J	5%
F	1%

Packaging	
	Taping
TB	in
	box

Lead Wire diameter	
Code	Size
075	100:0.75mm
075	200:0.75mm

Taping width	
Code	Size
73	73MM

Explanation :

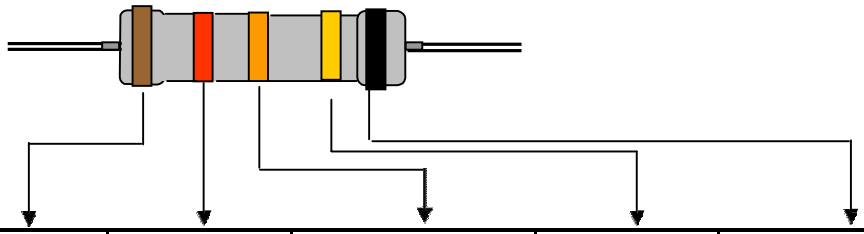
Part Number	Description
WR 100100RJ TB07573	Wire wound Resistor , 1W , 100Ω ,+/-5%, tape in box, Lead Wire diameter: d=0.75mm, Taping width=73mm.

PRODUCT : WIREWOUND RESISTOR | **TYPE : WR 100/200**

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

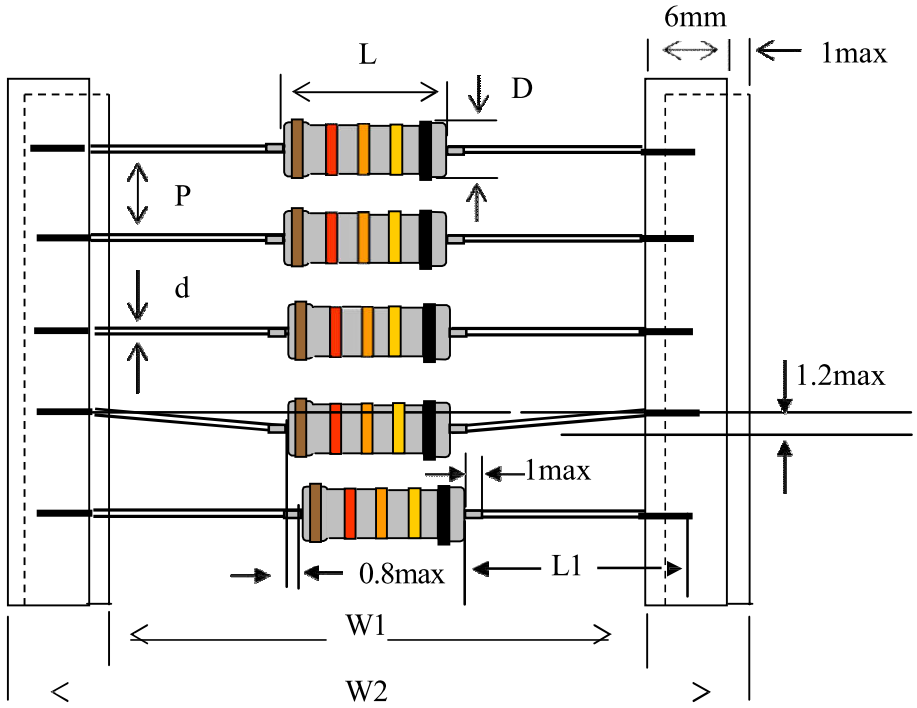


COLOR	1ST DIGIT	2ND DIGIT	MULTIPLIER	TOLERANCE	IDENTIFICATION
BLACK	0	0	1		WIREWOUND RESISTOR
BROWN	1	1	10	F (±1%)	
RED	2	2	100		
ORANGE	3	3	1,000		
YELLOW	4	4	10,000		
GREEN	5	5	100,000		
BLUE	6	6	1000,000		
VIOLET	7	7	10,000,000		
GREY	8	8			
WHITE	9	9			
GOLD			0.1	J (±5%)	
SILVER			0.01		

PRODUCT : WIREWOUND RESISTOR | **TYPE : WR 100/200**

3. DIMENSIONS :

TABLE - 2



Unit : mm

TYPE	L	D	d	P	W1	W2	L1
WR100	11.0±1.5	4.0±0.5	0.75±0.05	5±0.3	73±1.5	85±1.5	34±1
WR200	15.0±1.5	5.0±0.5	0.75±0.05	10±0.3	73±1.5	85±1.5	34±1

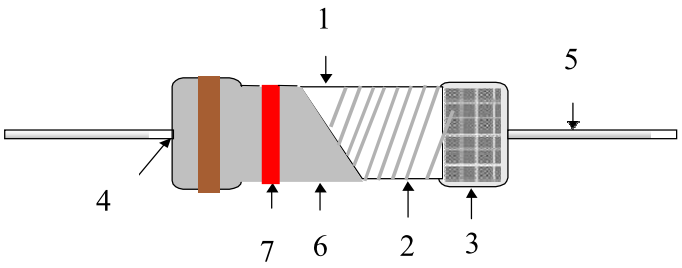
4. SPECIFICATIONS

TABLE - 3

DESCRIPTION	WR-100	WR-200
STANDARD RESISTANCE VALUE RANGE	0.1Ω -200Ω	0.1Ω - 470Ω
POWER RATINGAT 70℃	1W	2W
*MAX WORKING VOLTAGE	500V	500V
*MAX OVERLOAD VOLTAGE	1, 000V	1, 000V
OPERATING TEMPERATURE RANGE	-55℃~+255℃	-55℃~+255℃
TEMPERATURE COEFFICIENT	±300PPM	±300PPM
TEMPERATURE CYCLING	±(2%R+0.05Ω)	±(2%R+0.05Ω)
INSULATION RESISTANCE	MIN.1,000 MΩ	MIN.1,000 MΩ
HUMIDITY	±(5% R+0.05Ω)	±(5% R+0.05Ω)
SHORT-TIME OVERLOAD	±(2%R+0.05Ω)	±(2%R+0.05Ω)
SOLDERABILITY	MIN. 95% COVERED	MIN. 95% COVERED
VIBRATION	±(1% R+0.05Ω)	±(1% R+0.05Ω)
LOAD LIFE	±(5% R+0.05Ω)	±(5% R+0.05Ω)

* The workingvoltage is calculated based on the resistance value following the formula of V=√(P*R) or to its maximumextent as indicated above
* The overload voltage is calculated based on the resistance value following the formula of V= 2.5 *√(P*R) or to its maximumextent as indicated above

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

TABLE - 4

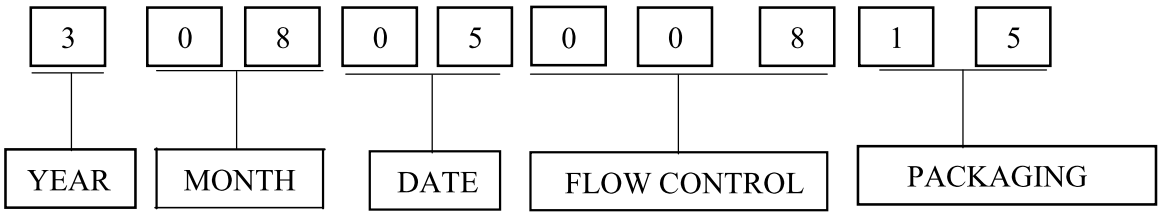
RATED RESISTANCE VALUE	MAX. TESTING VOLTAGE
	1W / 2W
0.1Ω≦R<10Ω	0.3
10Ω≦R<100Ω	1
100Ω≦R<1KΩ	3

6. CHARACTERISTICS

TABLE – 5

DC RESISTANCE VALUE	TEST METHOD MIL-STD-202 ITEM 303	VOLTAGE AS TABLE -4. TEMPERATURE 25 ±2℃. AQL 0.25%.
VOLTAGE WITHSTAND	TEST METHOD MIL-STD-202 ITEM 301	V-BLOCK METHOD. VOLTAGE AS TABLE -3 ×1.42 , 1 MIN. AQL 1%.
SHORT TIME OVERLOAD	TEST METHOD JIS C 5201 ITEM 5.5	RATED VOLTAGE × 2.5 TIMES OR MAX.WORKINGVOLTAGE × 2 TIMES. ABOVE TEST 5 SEC. THE RESISTANCE VALUECHANGE 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 VALUECHANGE RATE SHALL BE WITHIN ±(0.5%R+0.05 Ω).
SOLDERABILITY OF TERMINAL	TEST METHOD MIL-STD-202 ITEM 210	260±5℃ 10±1SEC. AFTER TESTING, LEAVE FOR 3 HOURS. THE RESISTANCE VALUECHANGE RATE SHALL BE WITHIN ±(1%R+0.05 Ω).
TEMPERATURE CYCLE	TEST METHOD MIL-STD-202 ITEM 107	LOW SIDE TEMPERATURE : -55℃±3℃ 30MIN. ROOM TEMPERATURE : 10-15MIN. HIGH SIDE TEMPERATURE :+125℃±3℃ 30MIN. ROOM TEMPERATURE : 10-15MIN. ABOVE TEST 5 CYCLES AFTER LAST CYCLE, LEAVE FOR 1-3 HOURS. THE RESISTANCE VALUECHANGE 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 VALUECHANGE RATE SHALL BE WITHIN ±(1%R+0.05 Ω).
LOAD LIFE	TEST METHOD MIL-STD-202 ITEM 108	70°±2℃. 1000 HOURS RATED VOLTAGE(1.5 HOURS ON, 0.5 HOUR OFF). THE RESISTANCE VALUECHANGE RATE SHALL BE WITHIN ±(5%R+0.05 Ω).
RESISTANCE TEMPERATURE COEFFICIENT	TEST METHOD MIL-STD-202 ITEM 304	THE RESISTANCE VALUECHANGE RATE SHALL BE AS TABLE – 3.
LOAD LIFE IN HUMIDITY	TEST METHOD MIL-STD-202 ITEM 103	THE RESISTANCE VALUECHANGE RATE SHALL BE WITHIN ±(5%R+0.05 Ω).

7. LOT NO. (CodingSystem)



8. PACKING DATA

TABLE – 6

TYPE	PER BOX	PER CARTON	INNER BOX			EXPORT CARTON		
			L	W	H	L	W	H
WR100	1,000PCS	10,000PCS	255mm	81mm	72mm	419mm	264mm	170mm
WR200	1,000PCS	10,000PCS	260mm	78mm	87mm	422mm	270mm	200mm