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TY-OHM ELECTRONIC WORKS CO.,LTD.

**MILLI OHM WIRE RESISTORS, WOR
RESISTOR SPECIFICATION**

Version : 2014.A

APPROVED BY

APPROVED	REVIEWED	PREPARED
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MILLI OHM WIRE RESISTORS, WOR

1. Applicable Scope:

This type resistor is non inductive.

It is customer order made.

Remark: Milli OHM WIRE RESISTORS are RoHS Compliant.

2. Part Number:

It is composed by Type, Wire Diameter, Pitch, Nominal Resistance, Tolerance and Forming. e. g.

WOR	1.6	×	10	3mR	J	M
Type	Wire Diameter		Pitch	Nominal Resistance	Tolerance	Forming

2.1 Type:

Milli ohm wire resistors are called "WOR".

2.2 Wire Diameter:

The range is 0.6mm ~2.6mm.

2.3 Pitch:

According to mounting requirements, there are 5mm, 10mm, 15mm..... etc.

2.4 Nominal Resistance:

mΩ is its unit which be in accordance with JIS-C6409 article 6 (EIA RS-196A) series. Letter "3mR" indicates resistance value 3mΩ.

2.5 Tolerance:

It is measured by Bridge-method at room temperature and expressed by a capital letter.

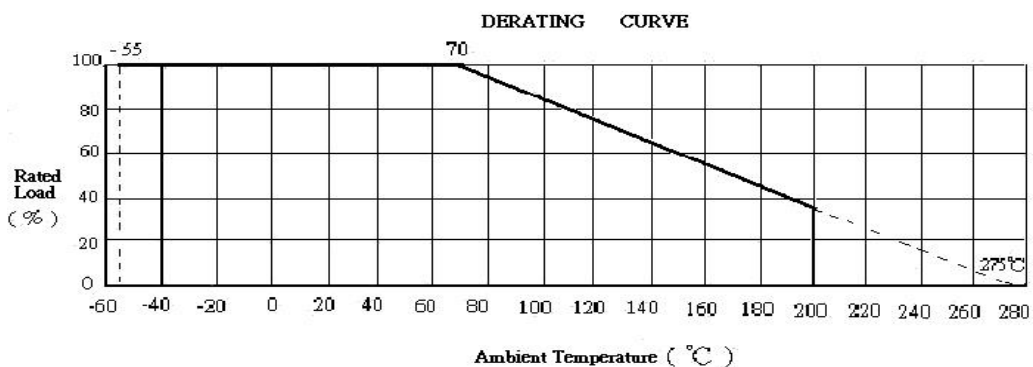
J:±5%.

2.6 Forming:

Upon the shape of forming, there are "M" form, "MS" form and "MG" form.

3. Rated Power:

Rated power is the value of Max load voltage specified at the ambient temperature of 70°C, and shall meet the functions of electrical and mechanical performance. When the ambient temperature surpasses above mentioned temperature, the value declines as per following DERATING CURVE.



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4. Operating Temperature Range: $-55^{\circ}\text{C} \sim 200^{\circ}\text{C}$

5. Electrical and mechanical specifications:

Characteristics	Condition		Test methods
Resistance and Tolerance	$3\text{m}\Omega$	$\pm 5\%$	JIS-C-5201
Temperature coefficient	CMW	$\pm 50\text{ppm}/^{\circ}\text{C}$	JIS-C-5201
Power rating load	Temperature 200°C MAX $\Delta R/R \leq 1\%$		JIS-C-5201
Short-time overload	No evidence of mechanical damage $\Delta R/R \leq 2\%$		JIS-C-5201
Terminal strength	No evidence of mechanical damage Wire dimension over 1.0mm 5KG/10sec Wire dimension below 0.8mm以下 2KG/10sec		JIS-C-5201
Vibration	No evidence of mechanical damage (Insert in the PCB state)		JIS-C-5201
Soldering heat	No evidence of mechanical damage (260°C 10sec) $\Delta R/R \leq 1\%$		JIS-C-5201
Solder-ability	95% coverage MIN (235°C 2sec)		JIS-C-5201

6. Environmental specifications:

Characteristics	Condition	Test methods
Heat resistor	No deterioration(200°C 2Hrs)	JIS-C-5201
Heat shock	No deterioration(power rating load 30min \rightarrow -55°C 15min) $\Delta R/R \leq 2\%$	JIS-C-5201
Temperature cycling	No evidence of mechanical damage ($-55^{\circ}\text{C}/200^{\circ}\text{C}$ 5 cycles) $\Delta R/R \leq 1\%$	JIS-C-5201
Load life in humidity	10%rate power load (90min ON 30min OFF 40°C 95%RH 250Hrs) $\Delta R/R \leq 2\%$	JIS-C-5201
Load life	100%rate power load (90min ON 30min OFF 1,000Hrs) $\Delta R/R \leq 3\%$	JIS-C-5201

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7. Dimension:

Unit: mm

φD $\pm 0.03(\text{mm})$	P $\pm 0.2(\text{mm})$	H max.	Center resistance ($\text{m}\Omega$)	Wire material
1.6	10	4	$3\pm 5\%$	CMW

8. Figure:

