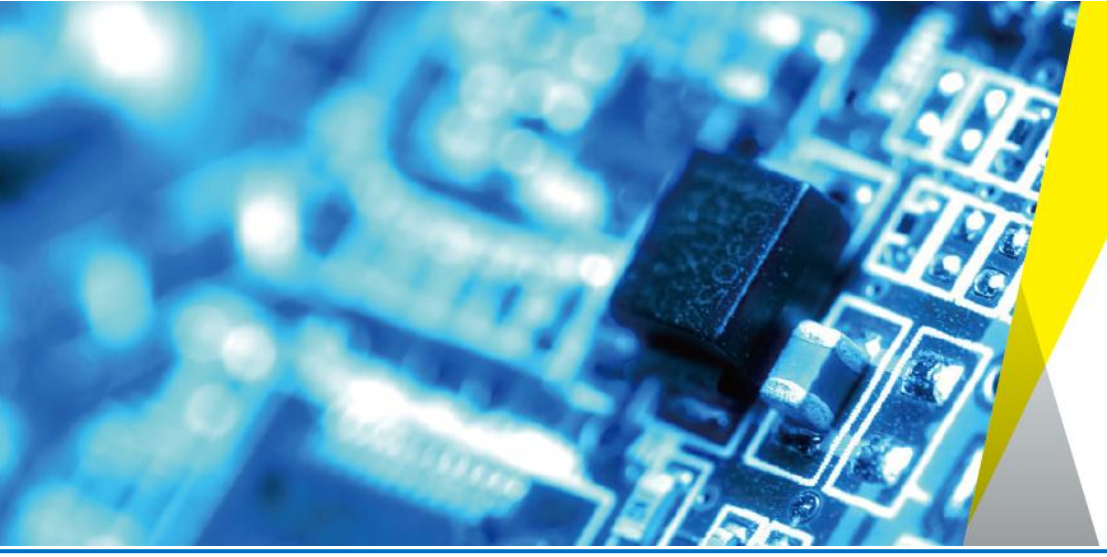

DATA SHEET

Product Name	**Thermal Fuse Wire-wound Resistors**
Part Name	**ASSY Series**
File No.	**DIP-SP-071**

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	Aeon Technology Corporation
	Royal Electronic Factory (Thailand) Co., Ltd.
	Royal Technology (Thailand) Co., Ltd.

1. Scope

1.1 This datasheet is the characteristics of Thermal Fuse Wire-wound Resistors manufactured by UNI-ROYAL.

1.2 High quality non-flame coating

1.3 Self fusing

1.4 High current load and pulse capacity

1.5 Application：Automobile

2. Part No. System

The standard Part No. includes 14 digits with the following explanation:

2.1 Resistors the 1st to 4rd digits are to indicate the product type.

Example: ASSY= ASSY type

2.2 5th digits are to indicate the Voltage :

Example: 1=12V

2.3 6th digits are to indicate the Cut off temp :

Example: A=92℃；B=167℃；C=184℃；D=216℃；E=227℃；F=240℃

2.4 The 7th digit is to denote the Resistance Tolerance. The following letter code is to be used for indicating the standard Resistance Tolerance.

K= ±10%

2.5 The 8th to 11th digits is to denote the Schematic style and resistance.

Example: 2A00=2 resistors circuit A

2B00=2 resistors circuit B

3A00=3 resistors circuit A

3B00=3 resistors circuit B

3C00=3 resistors circuit C

2.6 The 12th, 13th & 14th digits.

2.6.1The 12th digit is to denote the Packaging Type with the following codes:

B=Bulk /Box

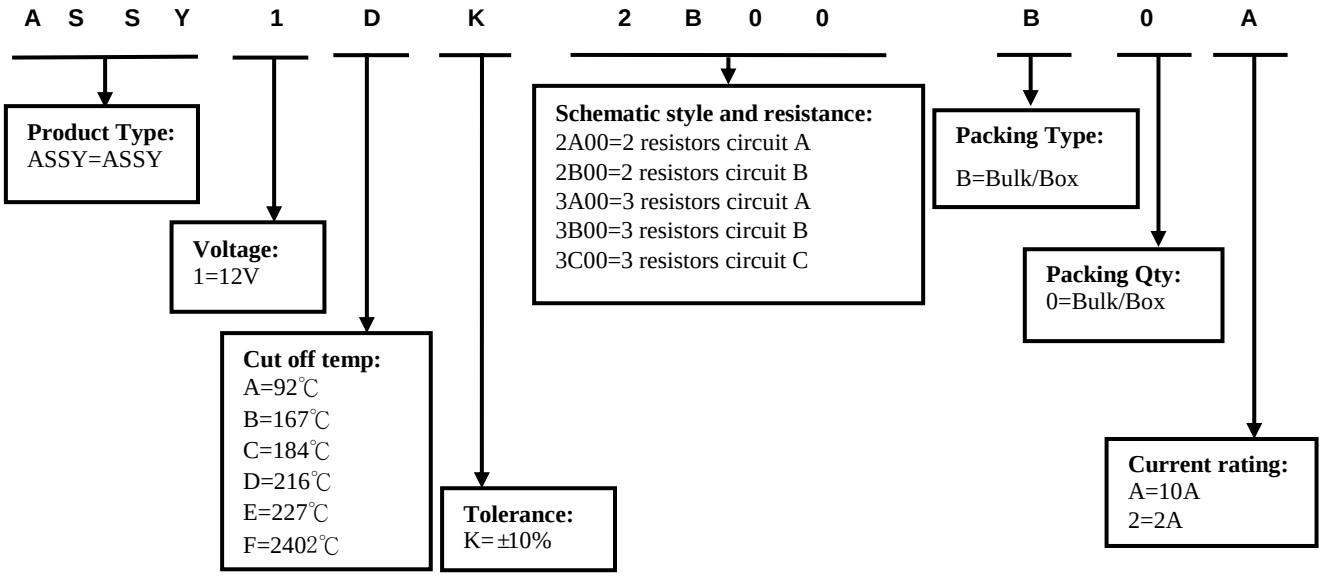
2.6.2 The 12th digit is to denote the packing qty . B=Bulk/Box

2.6.3 The 14th digit is to denote the Current rating

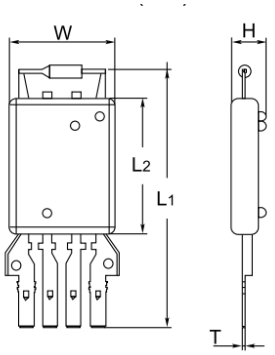
A=10A； B=2A

3. Ordering Procedure

(Example: ASSY 12V 216℃ ±10% 10A 0.5Ω+0.5Ω B/B)



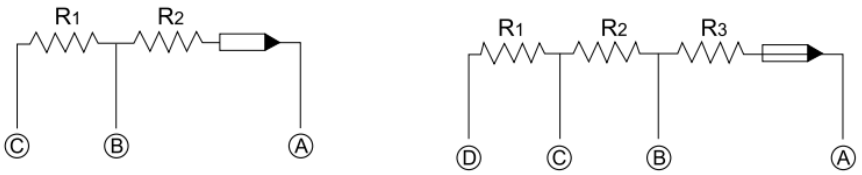
4. Dimension



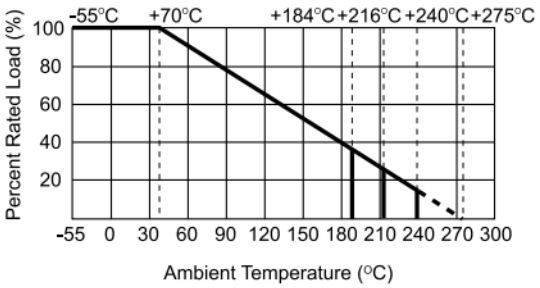
Unit：mm

Type	L1±3	L2 ±3	W ±3	H (max)	T ±0.2	Resistance Range
ASSY-4 Terminal	74	43	39	13	0.8	0.1Ω~10Ω
ASSY-5 Terminal	80	43	34	13	0.8	0.1Ω~10Ω

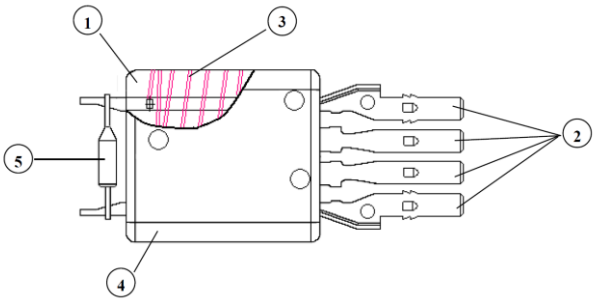
5. Circuit



6. Derating Curve



7. Construction



No.	Subpart Name	Material
①	Body	Rod Type Ceramics
②	Terminal	Nickel plated iron surface
③	Resistance wire	Ni-Cr Alloy
④	Coating	Insulated & Non-Flame (Color : Green)
⑤	Thermal fuse	Thermal fuse

8. Performance Specification

Characteristic	Limits	Test Method (GB/T 5729&JIS-C-5201&IEC60115-1)
Temperature Coefficient	±400PPM/℃	4.8 Natural resistance changes per temp. Degree centigrade $\frac{R_2-R_1}{R_1(t_2-t_1)} \times 10^6$ (PPM/℃) R_1: Resistance Value at room temperature （t_1）; R_2: Resistance at test temperature （t_2） t_1: +25 ℃ or specified room temperature t_2: Test temperature（+125℃）
Short-time overload	Resistance change rate is ±(5%+0.05Ω) Max. with no evidence of mechanical damage	4.13 Permanent resistance change after the application of a potential of 2.5 times RCWV or Max. Overload Voltage whichever less for 5 seconds..
Rapid change of temperature	Resistance change rate must be in ±(5%+0.05Ω), and no mechanical damage.	4.19 30 min at -55 ℃ and 30 min at 155 ℃; 5 cycles.
Load life in humidity	Resistance change rate must be in ±(5%+0.05Ω), and no mechanical damage.	7.9 Resistance change after 1,000 hours operating at RCWV with duty cycle of 1.5 hours “ON”,0.5 hour “OFF” in a humidity test chamber controlled at 40℃±2℃ and 90 to 95% relative humidity.
Load life	Resistance change rate must be in ±(5%+0.05Ω), and no mechanical damage.	4.25.1 Permanent resistance change after 1,000 hours operating at RCWV with duty cycle of 1.5 hours “ON”, 0.5 hour “OFF” at 70℃ ±2℃ ambient.

9. Note

9.1. UNI-ROYAL recommend products store in warehouse with temperature between 15 to 35℃ under humidity between 25 to 75%RH.

Even under storage conditions recommended above, solder ability of products will be degraded stored over 1 year old.

9.2. Cartons must be placed in correct direction which indicated on carton, otherwise the reel or wire will be deformed.

9.3. Storage conditions as below are inappropriate:

a. Stored in high electrostatic environment

b. Stored in direct sunshine, rain, snow or condensation.

c. Exposed to sea wind or corrosive gases, such as Cl_2, H_2S, NH_3, SO_2, NO_2, Br etc.

10. Record

Version	Description	Page	Date	Amended by	Checked by
1	First version	1~4	Jul.26, 2023	Haiyan Chen	Yuhua Xu