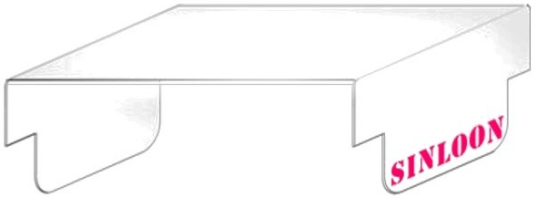
Shunt Resistor

1. Scope:

The shunt resistor FRL-R0034-J-XX is custom-made only.

2. Part Number:

F R L — R 0 0 3 4 — J — X X
a b c d



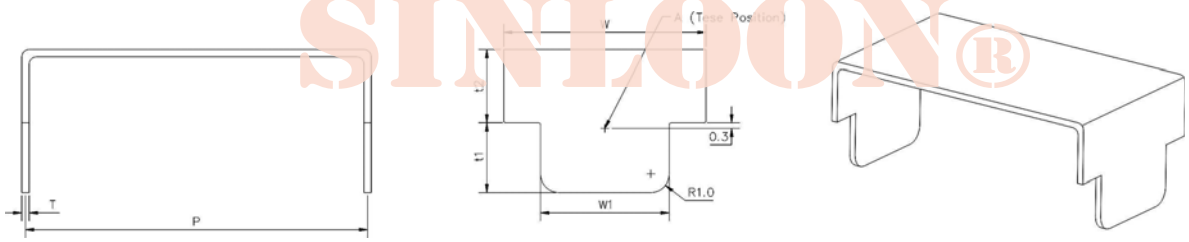
a. Type code
b. Nominal resistance
c. Resistance tolerance
d. Custom-made code

3. Structure:

Ni alloy resistor, cover with heat resistive epoxy resin partly

4. Dimension:

Figure - 1



Unit: mm

W	W1	T	t1	t2	P
11.0±0.1	7.0±0.1	0.4±0.05	3.8±0.1	4.0±0.1	18.0±0.1

Special dimensions request by customer are available

5. Specification:

Parameter	Specification
Resistance	3.4mΩ (4 points measurement : current and voltage measure on figure –1 A)
Resistance Tolerance	± 5%
Temperature Coefficient of Resistance	±50ppm/℃
Rated Load	10W
Maximum Over Current	60A (10 minutes maximum)
Operating Temperature	-55℃ ~ 155℃

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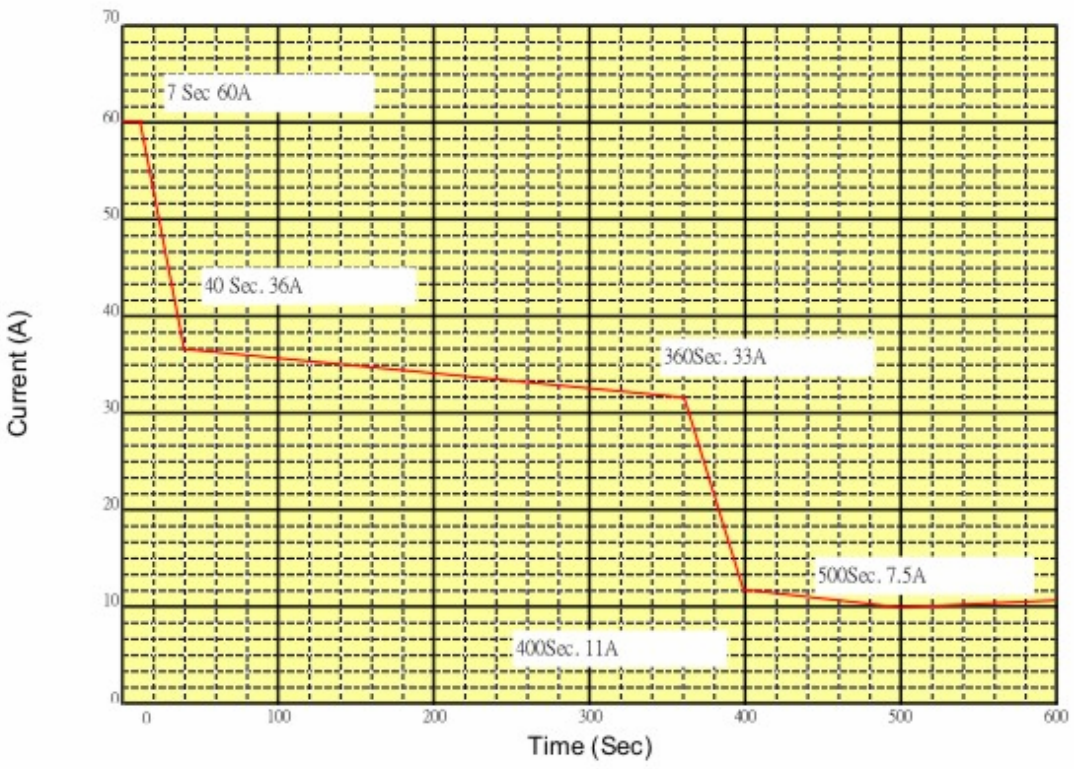
Rated Temperature	+70℃
Maximum Surface Temperature	+275℃ (under 150℃ on terminal)

6. Performance:

Item	Condition	Specification
Rated Current	Continuous 36A with 60A/7sec. maximum. (Refer to figure – 2)	No visual damaged. Resistance changed ≦ ±2%
High Temperature Storage	Keep at 275℃ for 2 hours and measured after 2 hours at room temperature.	No visual damaged. Resistance changed ≦ ±2%
Low Temperature Storage	Keep at -40℃ for 96 hours and measured after 2 hours at room temperature.	No visual damaged. Resistance changed ≦ ±2%
Temperature Cycle	[-40℃/30min → R.T. 10min → +125℃/30min → R.T. 10min] 300 continuous cycles.	No visual damaged. Resistance changed ≦ ±2%
Moisture	Keep at 80℃ and 85%RH without load for 580 hours.	No visual damaged. Resistance changed ≦ ±2%
Load Life	36A for 90min followed by a pause of 30min at a temperature of 85℃. Cycles shall be repeated for 1000h.	No visual damaged. Resistance changed ≦ ±5%
Solderability	Dipped into solder for 5±0.5sec at 245±5℃	A new solder shall cover minimum of 90 %

Figure - 2



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