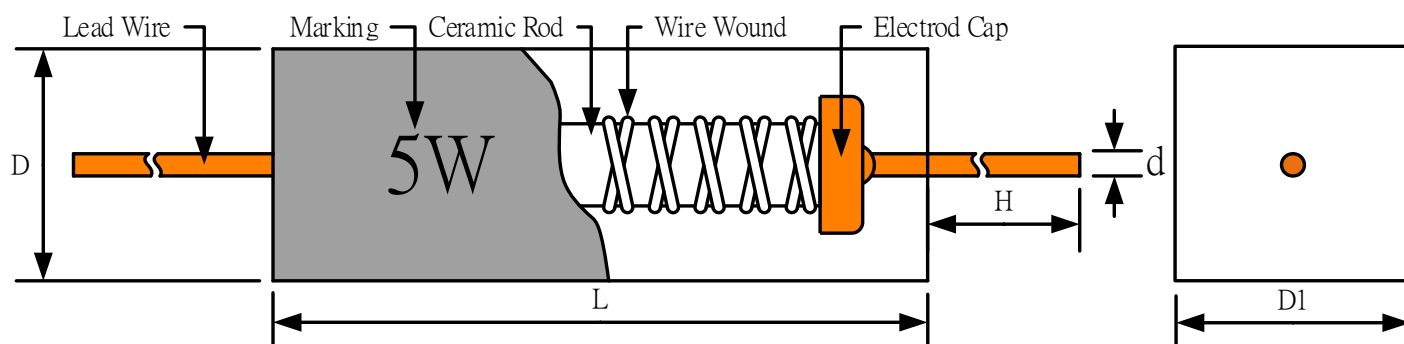


**FEATURE**

1. Low noise .
2. Instance overload capability; long term stability .
3. Excellent insulation being used in P.C.B.
4. Excellent heat dissipation; small linear .
5. Metal oxide film cutting core can offer high range resistance (1 Ω~100K)
6. Operating temperature range
  - Wire Wound : -50°C ~+155°C



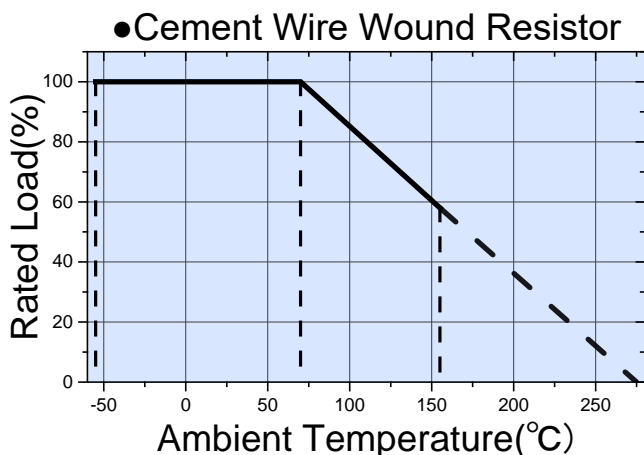
**★DIMENSIONS**



SPN	DIMENSION(mm)					Value Range	Max working voltage
	L±0.5	H ±3	D±1	D1±1	d		
2W	18	32.0 ±3	7	7	0.65±0.03	0.1Ω~15Ω	150V
3W	22	32.0 ±3	8	8	0.8±0.03	0.1Ω~15Ω	300V
4W	22	32.0 ±3	8	8	0.8±0.03	0.1Ω~15Ω	300V
5W	22	32.0 ±3	9.5	9	0.8±0.03	0.1Ω~15Ω	350V
7W	35	32.0 ±3	9.5	9	0.8±0.03	0.1Ω~33Ω	500V
10W	48	32.0 ±3	9.5	9	0.8±0.03	0.1Ω~33Ω	500V
15W	48	32.0 ±3	13	12	0.8±0.03	0.1Ω~33Ω	500V
20W	60	32.0 ±3	14	13	0.8±0.03	0.1Ω~33Ω	500V
25W	60	32.0 ±3	14	13	0.8±0.03	0.1Ω~33Ω	1000V
30W	77	32.0 ±3	18	17	0.8±0.03	0.1Ω~330Ω	1000V
40W	90	32.0 ±3	19	18	0.8±0.03	0.1Ω~330Ω	1000V
50W	90	32.0 ±3	19	18	0.8±0.03	0.1Ω~330Ω	1000V

Resistance Range for standard resistance , below or over this resistance on request.

★Power Derating Curve



★ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD	Wire Wound	Metal Oxide
Short Time Overload	2.5 times RCWV for 5 seconds	±(2%+0.05 Ω)	±(0.25%+0.05 Ω)
Temperature Coefficient	Resistance value at room (+25°C) Temperature and room Temperature(+125°C)	±300ppm	±200ppm
Load Life	70°C at RCWV for1000hrs.(1.5hrs. on , 0.5hrs.off)	±(5%+0.05 Ω)	±(1.5%+0.05 Ω)
Load Life In Humidity	40±2°C 90~95%RH at RCWV for1000hrs. (1.5hrs. on , 0.5hrs.off)	±(5%+0.05 Ω)	±(1.5%+0.05 Ω)
Solder Ability	235±5°C for 2±0.5 seconds	95% min. coverage	95% min. coverage
Pulse Overload	4 times RCWV for10000cycles(1sec.on , 25secs.off)	MAX.1500V ±(1%+0.05 Ω)	MAX.1500V ±(1%+0.05 Ω)
Dielectric Withstanding volt		MAX.1000V	MAX.1000V

Rated continuous Working Voltage (RCWV) = √Power. Rating × Resistance. Value

★PART NUMBER:

SPN	5W	3K	J
↓	↓	↓	↓
Type	Power rating	Resistance	Tolerance
Non inductive Cement SPN Type	2W	0R1    0.1 Ω	F    ± 1%
	3W	1R5    1.5 Ω	G    ± 2%
	.....	.....	J    ± 5%
	40W	10R    10 Ω	K    ± 10%
	50W	330R   330 Ω	