



● Features

- I .Rated Wattage from 1W to 300W.
- II .Max Working Voltage from 10KV to 35KV.
- III .Resistance Tolerance G($\pm 2\%$), J($\pm 5\%$), K($\pm 10\%$).
- IV .Temperature Coefficient: 200 ppm/°C to 400 ppm/°C.
- V .High Resistance Range from 1 Megohm to 1,000 Megohms.

● Application

- I .Impulse voltage generators,
- II .Arc furnace damping, Energy research,
- III .Pulse modulators, Radar Pulse-forming networks,
- IV .Capacitor crowbar circuits, High voltage snubber circuits,
- V .X-ray/imaging equipment, and EMI/lightning suppression.

● Introduction

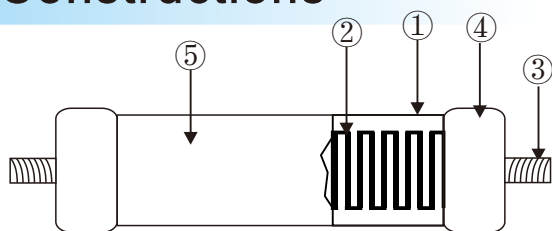
The tubular RI80 high voltage precision resistors were specifically designed for general purpose high voltage systems in industrial. The RI80 uses proprietary thick film Metal Glaze resistive element and Serpentine Pattern Design which provides ideal cost efficient, stability, precision and high voltage characteristics for a wide range of measurement, voltage divider circuits, and control functions in high voltage power electronics applications.

RI80 Precision Voltage Resistors are able to absorb large amounts of energy at high voltage while remaining non-inductive and heavy load characteristics. The RI80 conforms to the RoHS directives and Lead-free. Customized design and tighter tolerances are available on request.

By utilizing specific ceramic core materials with optimum processing, are able to control, very tightly in manufacturing, the important ultra-stable performance parameters in operating temperatures from -55°C to +70°C.

RI80 can handle up to 60KV voltage. This unique process is offered in specific resistance values in a wide variety of sizes and terminations. The extraordinary operating stability of the Type RI80 resistors will improve the performance of your high voltage system.

● Constructions



a	Ceramic Core
b	Glazed Resistive Film
c	Tinned Copper Lead Wire Or Screw
d	Iron Cap
e	Protective Coating

● Ordering Information

Example:

RI80	1	F	100K	A
(1)	(2)	(3)	(4)	(4)
Series Name	Power Rating	Resistance Tolerance	Resistance	Sketch of structure

(1)Type: RI80 SERIES

(2)Power Rating: 1=1W、2=2W、3=3W、50=50W...

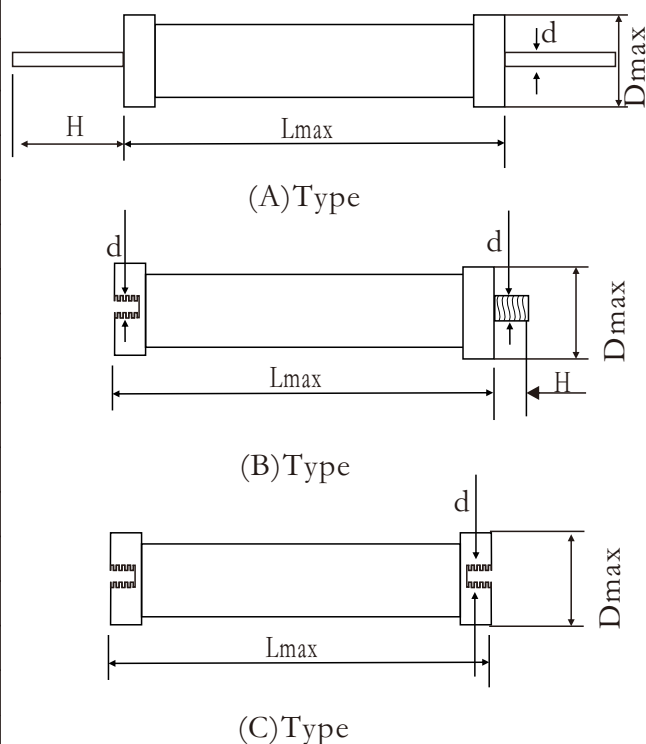
(3)Tolerance: F= $\pm 1\%$ 、G= $\pm 2\%$ 、J= $\pm 5\%$ 、K= $\pm 10\%$

(4)Resistance Value:10K、100K、1000K...

(5)Sketch of structure: A B C...

Dimensions

Type	Power	Style	Dimensions(mm)			
			L	D	H	d
RI80-1	1	A	30 ± 2	9 ± 1	30 ± 3	0.7 ± 0.1
RI80-2	2	A	50 ± 2	9 ± 1	30 ± 3	0.7 ± 0.1
RI80-3	3	A	65 ± 2	9 ± 1	30 ± 3	0.7 ± 0.1
RI80-5	5	A	100 ± 2	9 ± 1	30 ± 3	1.0 ± 0.1
RI80-10	10	A	144 ± 2	11 ± 1	30 ± 3	1.0 ± 0.1
RI80-10	10	B/C	147 ± 2	11 ± 1	6 ± 1	M4
RI80-20	20	B/C	116 ± 2	17 ± 1	10 ± 1	M6
RI80-25	25	B/C	116 ± 2	19 ± 1	10 ± 1	M6
RI80-30	30	B/C	116 ± 2	19 ± 1	10 ± 1	M6
RI80-50	50	B/C	116 ± 2	21 ± 1	10 ± 1	M6
RI80-80	80	B/C	130 ± 2	27 ± 1	10 ± 1	M6
RI80-100	100	B/C	160 ± 2	27 ± 1	10 ± 1	M6
RI80-150	150	B/C	210 ± 2	27 ± 1	10 ± 1	M6
RI80-200	200	B/C	260 ± 2	27 ± 1	10 ± 1	M6
RI80-300	300	B/C	310 ± 2	33 ± 1	10 ± 1	M6



Power And Resistance etc

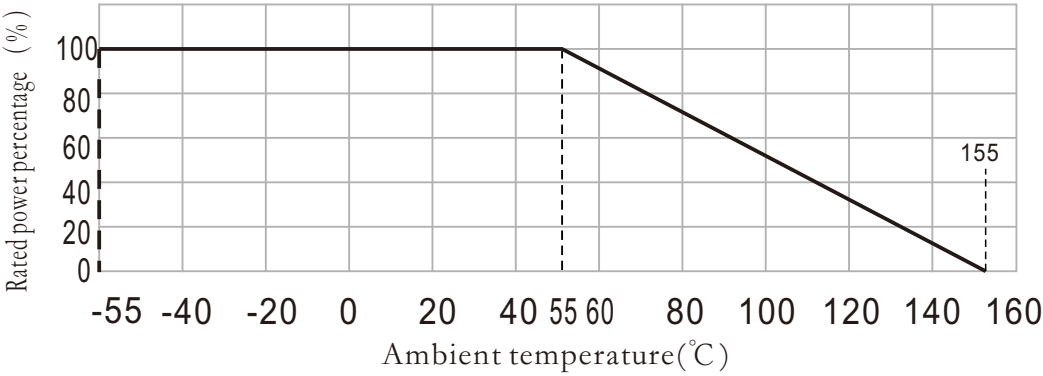
Rated Power(W)	Resistance Range(Ω)	(PPM/ $^{\circ}\text{C}$)	Max Working Voltage (KV)	Applicable temperature	Tolerance
RI80-1	1R-1T	$1\text{R} \leq \text{R} < 1\text{G}$, ($\pm 100\text{ppm}$)	10	-55°C $\sim$ $+70^{\circ}\text{C}$	F ($\pm 1\%$) G ($\pm 2\%$) J ($\pm 5\%$) K ($\pm 10\%$)
RI80-2			15		
RI80-3			15		
RI80-5			25		
RI80-10			30		
RI80-10	1R-1G	$1\text{G} \leq \text{R} < 10\text{G}$, ($\pm 200\text{ppm}$)	30		
RI80-20			35		
RI80-25			30		
RI80-30			30		
RI80-50			30		
RI80-80			30		
RI80-100			35		
RI80-150			35		
RI80-200	1R-200M	$100\text{G} \leq \text{R} \leq 1\text{T}$, ($\pm 500\text{ppm}$)	50		
RI80-300			60		

● Non-inductive Characteristics

RI80 use non-inductive design, special glazed film , distribute itself like the Great Wall, this high efficiency and non-inductive design will not cut any advantages of the resistor's function. It is perfect for products which request high frequency inductance value keeps at 0.1μH~1μH.



● Derating Curve



● Performance

TEST ITEM	SPECIFICATIONS(JIS C 5201-1)
Resistance Tolerance	± 1% ± 5% ± 10% , ± 0.5%is available
Temperature Coefficient	± 100ppm/℃ , ± 200ppm/℃ , ± 300ppm/℃
Load life	+125℃ ,1000hours ΔR≤ 0.5%
Insulation Resistnce	≥1000MΩ
Encapsulation	High temperature silicone conformal
Overload	2.5 Rated power(≤ 1.5 Max. operating voltage)5s ΔR≤ 0.5%
Thermal shock	ΔR≤ 0.25%
Moisture resistance	ΔR≤ 0.4%
Solderable Lead	30± 3mm