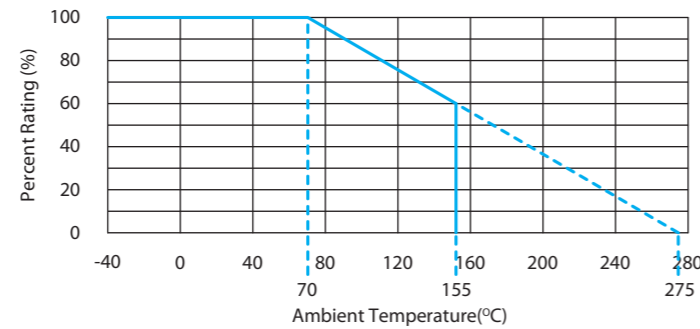


### Type Designation

MPR	05	V	R015	J
Products Code	Power Rating	Style	Nominal Resistance	Resistance Tolerance
	02: 2W 05: 5W 10: 10W	V-Type VF-Type VL-Type SL-Type	R015: 0.015Ω R150: 0.15Ω	G: ±2% J: ±5% K: ±10%

### Derating Curve

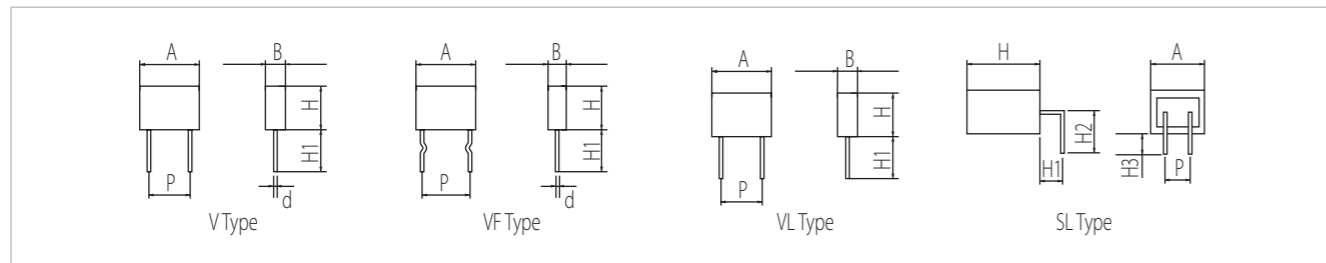


MPR is non-inductive metal plate inserted into the ceramic case and finally sealed and insulated with inorganic fillers. It use for current sensing.

### Features

- Power type resistor made with resistant element of metallic.
- Flame proof resistor in ceramic case.
- Excellent stability to heat and moisture.
- Automatic insertion is available.
- Product with lead free meet RoHS requirements.
- Low inductance.
- Space saving.

### Dimension & Rating

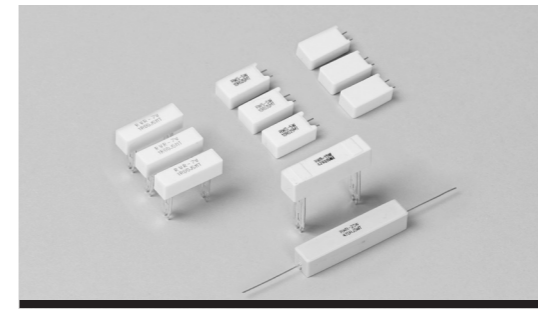


Power Rating	Resistance Range (Ω)	Resistance Tolerance (%)	Operating Temp. Range (°C)	Ambient Temperature (°C)	Style	Dimension (mm)								
						A	B	H	H1	H2	H3	P	Φd	
2W	0.02~0.08	G: ±2 J: ±5 K: ±10	-40~+200	70	V-	14.5±1.0	5.0±1.0	9.0±1.0	4.5±0.5	-	-	10.0±1.0	0.8±0.02	
5W	0.01~1.0				V-			4.5±0.5	-	-				
					VF			13.5±1.0	4.5±0.5	-				
					VL	14.5±1.0	5.0±1.0	18.0±1.0	14.0±0.5	-	-	10.0±1.0		
10W					SL			3.0±0.5	6.25±0.5	3.4±0.4				
					V-	26.5±1.5	5.0±1.0	18.0±1.5	4.5±0.5	-	-	20.0±1.0		
					VF				13.5±1.0	4.5±0.5	-			

### Performance

Test Items	Performance Requirements	Test Methods
Resistance	Within specified tolerance	Measure resistance at 25°C
T.C.R	Over 0.1Ω : Within ±400 Under 0.1Ω : Within ±600	Rated power x 10 for 5sec
Short Time Overload	±[2%+0.1Ω]	+25°C/+125°C
Resistance Against Soldering Test	±[2%+0.05Ω]	260±5°C, 10±1sec measure resistance After 1hr at room temp
Load Life in Moisture	±[3%+0.1Ω]	40±2°C, 90~95%RH, 1.5hr ON/0.5hr OFF cycle, 1,000hr
Load Life in Temperature	±[3%+0.1Ω]	70±2°C, 1.5hr ON/0.5hr OFF cycle, 1,000hr

Specification given here in may be changed at any time without prior notice. Please confirm technical specifications before you order or use.



- Flame Proof Square Type Wire-Wound Resistor with Glass Core (RWR)
- Flame Proof Square Type Wire-Wound Resistor with Ceramic Rod (RWS)
- Flame Proof Square Type Metal Oxide Film Resistor (RSR)

### Type Designation

RWR	05	V-	1R00	J
Products Code	Power Rating	Style	Nominal Resistance	Resistance Tolerance
	05: 5W 07: 7W 10: 10W 15: 15W 20: 20W 25: 25W	A-: Bulk Type V-: Vertical Type P-: Pin Type PD: Double Pin Type SP: Short Double Pin Type	R470: 0.47Ω 1R00: 1Ω 1K00: 1KΩ	J: ±5% K: ±10%

RWR/RWS/RSR type resistor are developed for high thermal dissipation in a small volume. These types, having good thermal conduction, are mounted with inorganic materials. They are the most useful for power circuit of various electronic equipment.

### Features

- Flame proof inorganic construction.
- Designed to utilize heat sink effect and designed small.
- Highly stable to heat and moisture.
- Excellent protective characteristic of inrush current.

### Rating

Type	Max. Working Voltage (V)	Max. Overload Voltage (V)	Resistance Range (Ω)	Resistance Tolerance (%)	TCR (PPM/°C)	Operating Temp. Range (°C)	Ambient Temperature (°C)
RWR 03	$\sqrt{P \times R}$	$\sqrt{P \times R \times 10}$	0.24~100	J: ±5% K: ±10%	20Ω ≥ ±260 20Ω < ±400	-40~+200	70
RWR 05			0.47~100				
RWR 07							
RWR 10							
RWR 15			0.2~100				
RWR 20							
RWR 25							
RWS 05	$\sqrt{P \times R}$	$\sqrt{P \times R \times 10}$	0.1~10	±400	±400	-40~+155	70
RWS 07			0.1~150				
RWS 10			0.1~270				
RSR 05	350	700	10~100K	±350	-55~+155		
RSR 07	500	1,000	10~51K				

### Performance

Test Items	Performance Requirements	Test Methods
Resistance	Within specified tolerance	Measure resistance at 25°C
Short Time Overload	Within ±[2% + 0.1Ω]	RSR: Rated voltage x2.5 for 5sec/ RW*: Rated power x 10 for 5sec
Resistance Against Soldering Test	±[2%+0.05Ω]	260±5°C, 10±1sec measure resistance After 1hr at room temp
Load Life in Moisture	RSR: ±[5%+0.1Ω] RW*: ±[3%+0.1Ω]	40±2°C, 90~95%RH, 1.5hr ON/0.5hr OFF cycle, 1,000hr
Load Life in Temperature	RSR: ±[5%+0.1Ω] RW*: ±[3%+0.1Ω]	70 ± 2°C, 1.5hr ON/0.5hr OFF cycle, 1,000hr

Specification given here in may be changed at any time without prior notice. Please confirm technical specifications before you order or use.