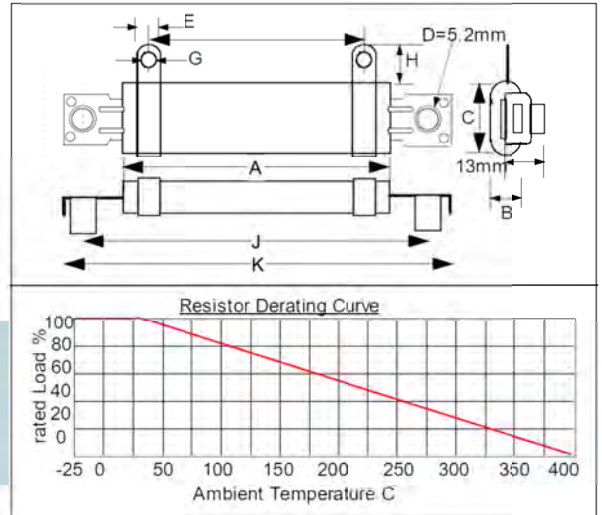


## Silicon Coated Oval / Flat Type Wire-Wound Power Resistors – ZZR series

- These resistors are suitable as Loading Resistor, Braking Resistor, Capacitor Discharge, Resistive Load Simulation, machinery and equipment higher power application.
- Compact sizes
- Low Inductance and Waved Ribbon type available
- Support pulse current applications
- Support Precision Resistance Tolerance
- Mounting fixture is available, allow stacking into compact unit
- Support customized tab terminal
- With power up to 500W



### ZZR-F : Oval / Flat Wire Wound Resistors

Power Rating	Dimensions in mm +/-1mm								Resistance Range ohm
	A	B	C	E	G	H	J	K	
40W	50	9	27	6.5	4.1	12	70	103	0.1 – 4k
50W	90	9	27	6.5	4.1	12	110	123	0.1 – 4k
60W	90	9	27	6.5	4.1	12	110	123	0.1 – 4k
80W	120	9	27	6.5	4.1	12	140	153	0.1 – 4k
100W	150	9	27	6.5	4.1	12	170	183	0.1 – 4k
120W	160	9	27	6.5	4.1	12	180	193	0.1 – 4k
150W	185	11	27	6.5	4.1	12	205	218	0.1 – 4k
200W	210	11	27 / 35	9	5.2	13	230	243	0.1 – 4k
250W	254	11	35	9	5.2	13	274	287	0.1 – 4k
300W	300	11	35	9	5.2	13	320	333	0.1 – 4k

### Electrical Characteristics :

Testings	Testing Conditions	Testing Results
Resistance Tolerance	JIS-C-5202 5-1 testing voltage<3V 25C	+/-5%
Temperature Coefficient	+/- 400ppm/C max.	
Rated Load	JIS-C-5202 5-4 40C at rated voltage 1hour	$\Delta R \leq \pm(1\% + 0.1\text{ohm})$ surface temperature < 400C
Insulation Resistance	JIS-C-5202 5-6 500Vdc	100M ohm min.
Dielectric Withstand voltage	JIS-C-5202 5-7 1000Vdc 1min.	$\Delta R \leq \pm(0.1\% + 0.05\text{ohm})$
Short Time Overload	JIS-C-5202 5-5 5*rated power in 5 seconds	$\Delta R \leq \pm(2\%R_o + 0.1\text{ohm})$
Flammability	1 - 6 times rated power 5min.	without combustion

### Part Number :

Series + Rated Power + Resistance Value ( ohm ) + Resistance Tolerance + Drawing Number

ZZR	40 - 300W	0.1 ohm = R1	F = +/-1%	F : mounting fixture
ZNR	40 - 300W	1 ohm = 1R	G = +/-2%	
		15 ohm = 15R	J = +/-5%	
		150 ohm = 150R	K = +/-10%	
		1k ohm = 1kR	R = -0/+5%	
			T = -0/+10%	