

# 80 Series

Commercial Grade Acrasil<sup>®</sup>, Silicone-Ceramic  
Conformal Axial Terminal Wirewound  
1% Tolerance (5% available)



# RW Series

Military Grade 80 Series MIL-R-26 Qualified

Ohmite's highest quality conformal axial terminal silicone-ceramic coated resistors for applications requiring high precision and stability. These resistors have a low temperature coefficient and maintain a high degree of stability under demanding conditions.

## FEATURES

- Designed for precision power applications
- All-welded construction
- RW Series "Mil" value resistors marked with "Mil" in accordance with MIL-R-26 specifications

## SERIES SPECIFICATIONS

Commercial Grade	Military Grade	Watts	Ohms	Voltage
81F	RW70U	1	0.1-6K	150
82		2	0.1-8K	100
83F	RW79U	3	0.1-20K	200
83J	RW69V			
85F	RW74U	5	0.1-75K	460
85J	RW67V			
80F	RW78U	10	0.1-150K	1000
80J	RW68V			

Non-Inductive versions available. Insert "N" before tolerance code. Example: 83NF2K21

## CHARACTERISTICS

<b>Coating</b>	Silicone-ceramic
<b>Core</b>	Ceramic
<b>Terminals</b>	Solder-coated copper clad axial
<b>Derating</b>	Linearly from 100% @ +25°C to 0% @ +275°C.
<b>Tolerance</b>	±5% (J type), ±1% (F type) (other tolerances available)
<b>Power rating</b>	Based on 25°C free air rating
<b>Maximum ohmic values</b>	See chart
<b>Overload</b>	Under 5 watts: 5 times rated wattage for 5 seconds. 5 watts and over: 10 times rated wattage for 5 seconds
<b>Temperature coefficient</b>	Under 1Ω: ±90 ppm/°C 1 to 9.99Ω: ±50 ppm/°C 10Ω and over; ±20 ppm/°C
<b>Dielectric withstanding voltage</b>	500 VAC: 1 watt rating; 1000 VAC: 2, 3, 5, 7, and 10 watt rating

## DIMENSIONS

(in./mm max.)



		Watts	Length	Diam.	Lead gauge
81F	RW70U	1	0.437 / 11.1	0.125 / 3.2	24
82		2	0.406 / 10.3	0.219 / 5.6	20
83F	RW79U	3	0.593 / 15.1	0.218 / 5.5	20
83J	RW69V				
85F	RW74U	5	0.937 / 23.8	0.343 / 8.7	18
85J	RW67V				
80F	RW78U	10	1.842 / 46.8	0.406 / 10.3	18
80J	RW68V				

(continued)

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## ORDERING INFORMATION

### Commercial Grade (80 Series) Part Numbers

Ohmic value	Part No. Prefix Suffix	Wattage				Ohmic value	Part No. Prefix Suffix	Wattage				Ohmic value	Part No. Prefix Suffix	Wattage				Ohmic value	Part No. Prefix Suffix	Wattage					
		1	3	5	10			1	3	5	10			1	3	5	10			5	10				
0.1	R10	✓	✓	✓	✓	2.21	2R21	✓	✓	✓	✓	51.1	51R1	✓	✓	✓	✓	1,210	1K21	✓	✓	27,400	27K4	✓	✓
0.11	R11	✓	✓	✓	✓	2.49	2R49	✓	✓	✓	✓	56.2	56R2	✓	✓	✓	✓	1,330	1K33	✓	✓	30,100	30K1	✓	✓
0.121	R121	✓	✓	✓	✓	2.74	2R74	✓	✓	✓	✓	61.9	61R9	✓	✓	✓	✓	1,500	1K5	✓	✓	33,200	33K2	✓	✓
0.133	R133	✓	✱	✓	✓	3.01	3R01	✓	✓	✓	✓	68.1	68R1	✓	✓	✓	✓	1,620	1K62	✓	✓	37,400	37K4	✱	✱
0.15	R15	✓	✓	✓	✓	3.32	3R32	✓	✓	✓	✓	75	75R	✓	✱	✓	✓	1,820	1K82	✓	✓	38,300	38K3	✓	✱
0.162	R162	✓	✱	✓	✓	3.74	3R74	✓	✓	✓	✓	82.5	82R5	✓	✓	✓	✓	2,000	2K0	✓	✓	40,200	40K2	✓	✓
0.182	R182	✓	✓	✓	✓	4.02	4R02	✓	✓	✓	✓	90.9	90R9	✓	✓	✓	✓	2,210	2K21	✓	✓	45,300	45K3	✓	✓
0.2	R20	✓	✓	✓	✓	4.53	4R53	✓	✓	✓	✓	100	100	✓	✓	✓	✓	2,490	2K49	✓	✓	49,900	49K9	✓	✓
0.221	R221	✓	✓	✓	✓	4.99	4R99	✓	✓	✓	✓	110	110	✓	✓	✓	✓	2,740	2K74	✓	✓	51,100	51K1	✓	✓
0.249	R249	✓	✓	✓	✓	5.11	5R11	✓	✓	✓	✓	121	121	✓	✓	✓	✓	3,010	3K01	✓	✓	56,200	56K2	✓	✓
0.274	R274	✓	✓	✓	✓	5.62	5R62	✓	✓	✓	✓	133	133	✓	✱	✓	✱	3,320	3K32	✓	✓	61,900	61K9	✓	✱
0.301	R301	✓	✓	✓	✓	6.19	6R19	✓	✓	✓	✓	150	150	✓	✓	✱	✓	3,740	3K74	✓	✓	68,100	68K1	✓	✓
0.332	R332	✓	✱	✓	✓	6.81	6R81	✓	✓	✓	✓	162	162	✓	✓	✓	✓	4,020	4K02	✓	✓	75,000	75K	✓	✓
0.374	R374	✓	✱	✓	✓	7.5	7R5	✓	✓	✓	✓	182	182	✓	✓	✓	✓	4,530	4K53	✓	✱	82,500	82K5	✓	✓
0.392	R392	✓	✓	✓	✓	8.25	8R25	✓	✓	✱	✓	200	200	✓	✓	✓	✓	4,990	4K99	✓	✓	90,900	90K9	✓	✓
0.402	R402	✓	✓	✓	✓	9.09	9R09	✓	✓	✓	✓	221	221	✓	✓	✓	✓	5,110	5K11	✓	✓	100,000	100K	✓	✓
0.453	R453	✓	✓	✓	✓	10	10R	✓	✓	✓	✓	249	249	✓	✓	✓	✓	5,620	5K62	✓	✓	150,000	150K	✓	✓
0.499	R499	✓	✓	✓	✓	11	11R	✓	✓	✓	✓	274	274	✓	✓	✱	✓	6,190	6K19	✓	✓	200,000	200K	✓	✓
0.511	R511	✓	✱	✓	✓	12.1	12R1	✓	✓	✓	✓	301	301	✓	✓	✓	✓	6,810	6K81	✓	✓				
0.562	R562	✓	✓	✓	✓	13.3	13R3	✓	✱	✓	✱	332	332	✓	✓	✓	✓	7,500	7K5	✓	✓				
0.619	R619	✓	✓	✓	✓	15	15R	✓	✓	✓	✱	374	374	✓	✓	✓	✓	8,250	8K25	✓	✓				
0.681	R681	✓	✓	✓	✓	16.2	16R2	✓	✱	✱	✓	402	402	✓	✓	✓	✓	9,090	9K09	✓	✱				
0.75	R75	✓	✱	✓	✓	18.2	18R2	✓	✓	✓	✓	453	453	✓	✓	✓	✓	10,000	10K	✓	✓				
0.825	R825	✓	✓	✓	✓	20	20R	✓	✓	✓	✓	499	499	✓	✓	✓	✓	10,500	10K5	✓	✱				
0.909	R909	✓	✓	✓	✓	22.1	22R1	✓	✓	✓	✓	511	511	✓	✓	✓	✓	11,000	11K	✓	✱				
1	R10	✓	✓	✓	✓	24.9	24R9	✓	✓	✓	✓	562	562	✓	✓	✓	✓	12,100	12K1	✓	✱				
1.1	R11	✓	✓	✓	✓	27.4	27R4	✓	✓	✓	✓	619	619	✓	✓	✓	✓	13,300	13K3	✓	✱				
1.21	R121	✓	✓	✓	✓	30.1	30R1	✓	✓	✓	✓	681	681	✓	✓	✓	✓	15,000	15K	✓	✓				
1.330	R133	✓	✓	✓	✓	33.2	33R2	✓	✓	✓	✓	750	750	✓	✓	✓	✓	16,200	16K2	✓	✱				
1.5	R15	✓	✓	✓	✓	37.4	37R4	✓	✓	✱	✓	825	825	✓	✓	✓	✓	18,200	18K2	✓	✱				
1.62	R162	✓	✱	✓	✓	40.2	40R2	✓	✓	✓	✓	909	909	✓	✓	✓	✓	20,000	20K	✓	✓				
1.82	R182	✓	✓	✓	✓	45.3	45R3	✓	✓	✓	✓	1,000	1K0	✓	✓	✓	✓	22,100	22K1	✓	✓				
2	R20	✓	✓	✓	✓	49.9	49R9	✓	✓	✓	✓	1,100	1K1	✓	✱	✓	✓	24,900	24K9	✓	✓				

✓ = Standard values  
✱ = Non-standard values subject to minimum handling charge per item

Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.

Commercial Grade Non-Inductive Winding  
Optional (blank = std. winding)

**81NJR10**

80 Series  
Acrasil<sup>®</sup>  
Silicone Ceramic  
Conformal Axial  
Term. Wirewound

Wattage  
1 = 1W  
2  
3  
5  
10 = 10W

Tolerance  
F = 1%  
J = 5%

Resistance Value  
R10 = 0.10Ω  
1R0 = 1.0Ω  
10R = 10.0Ω  
250 = 250Ω  
1K0 = 1,000Ω  
4K5 = 4,500Ω  
50K = 50,000Ω

Military Grade

**RW74U1001F**

RW Series  
Military grade

Resistance Value  
R100 = 0.1Ω  
1R00 = 1.0Ω  
10R0 = 10.0Ω  
1000 = 1000Ω 1002 = 10KΩ  
1001 = 1000Ω 1503 = 150KΩ

Tolerance  
F = 1%  
J = 5%

This product will not be made available as RoHS Compliant.

For RoHS Compliant equivalent, see 40 Series.