

# 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  
0 = 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.