

80 Series

Commercial Grade Acrasil®, 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			

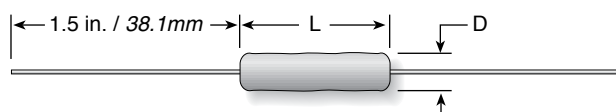
Non-Inductive versions available. Insert "N" before tolerance code. Example: 83NF2K21

CHARACTERISTICS

Coating	Silicone-ceramic
Core	Ceramic
Terminals	Solder-coated copper clad axial
Derating	Linearly from 100% @ +25°C to 0% @ +275°C.
Tolerance	±5% (J type), ±1% (F type) (other tolerances available)
Power rating	Based on 25°C free air rating
Maximum ohmic values	See chart
Overload	Under 5 watts: 5 times rated wattage for 5 seconds. 5 watts and over: 10 times rated wattage for 5 seconds
Temperature coefficient	Under 1Ω; ±90 ppm/°C 1 to 9.99Ω: ±50 ppm/°C 10Ω and over; ±20 ppm/°C
Dielectric withstanding voltage	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	Wattage					Ohmic value	Wattage					Ohmic value	Wattage					Ohmic value	Wattage										
	Part No. Prefix ▶ Suffix ▼	1	3	5	10		Part No. Prefix ▶ Suffix ▼	1	3	5	10		Part No. Prefix ▶ Suffix ▼	1	3	5	10		Part No. Prefix ▶ Suffix ▼	1	3	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.

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✦ = Non-standard values
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Shaded values involve
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Commercial Grade Non-Inductive Winding
Optional (blank = std. winding)

81 N J R 10

80 Series
Acrasil[®]
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

R W 7 4 U 1 0 0 1 F

RW Series
Military grade

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

Tolerance
F = 1%
J = 5%

This product will
not be made avail-
able as RoHS
Compliant.

For RoHS
Compliant equiva-
lent, see 40 Series.

Mouser Electronics

Authorized Distributor

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