

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			

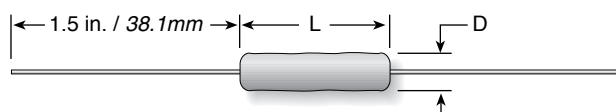
Non-Inductive versions available. Insert "N" before tolerance code. Example: 83NF2K21

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.

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 1002 = 10KΩ
1001 = 1000Ω 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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Ohmite:

[80FR562](#) [83F90R9](#) [80F22R1](#) [85F249](#) [83F6K81](#) [80F2R21](#) [80F10K5](#) [85FR75](#) [80F2R74](#) [80FR162](#) [80F22K1](#)
[83F6K19](#) [85F200](#) [80F2R49](#) [80FR133](#) [80FR121](#) [83F11R](#) [80F56K2](#) [83F15K](#) [83F11K](#) [83F15R](#) [83F750](#) [80F56R2](#)
[85F51K1](#) [85F51R1](#) [83F27R4](#) [83F2K49](#) [85F90R9](#) [80F45K3](#) [85F61R9](#) [85F33R2](#) [85F511](#) [85F33K2](#) [80F332](#)
[85F562](#) [80FR909](#) [81F10R](#) [80F38K3](#) [81F40R2](#) [80F150K](#) [85F2R49](#) [85F2R74](#) [85F22K1](#) [85FR133](#) [85FR182](#)
[81F1K82](#) [83F51R1](#) [85F22R1](#) [85FR162](#) [85FR121](#) [81F1K21](#) [85F40R2](#) [83F18K2](#) [83F18R2](#) [83F16R2](#) [81F82R5](#)
[83F12K1](#) [83F1R33](#) [83F12R1](#) [83F1R82](#) [81FR825](#) [85FR301](#) [85FR392](#) [85FR332](#) [85FR374](#) [83F4K02](#) [83F4K99](#)
[83F4K53](#) [80F27K4](#) [85F750](#) [80F511](#) [80F562](#) [85F7R5](#) [85F20R](#) [85F20K](#) [85F825](#) [38FR392](#) [85F9R09](#) [81F6R81](#)
[85F6K19](#) [80F51K1](#) [83F4R53](#) [83F4R99](#) [83F4R02](#) [85F13K3](#) [85F13R3](#) [85FR619](#) [85FR221](#) [80F61K9](#) [80F61R9](#)
[85FR249](#) [85FR274](#) [81FR301](#) [80F90K9](#) [80F90R9](#) [80F2K49](#) [80F2K21](#) [80F2K74](#) [83F1K82](#) [83F1K21](#)