



THE DATASHEET OF 80F1R5

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	Watts	Ohms	Voltage	Military Grade	Watts	Ohms	Voltage
81F	1	0.1Ω–6K	150	RW70U	1	0.1Ω–3.16K	52
82	2	0.1Ω–8K	100				
83F	3	0.1Ω–20K	200	RW79U	3	0.1Ω–10.5K	135
83J				RW69V	3	0.1Ω–2K	200
85F	5	0.1Ω–75K	460	RW74U	5	0.1Ω–38.3K	300
85J				RW67V	6.5	0.1Ω–8.2K	300
80F	10	0.1Ω–150K	1000	RW78U	10	0.1Ω–90.9K	720
80J				RW68V	11	0.1Ω–20K	300

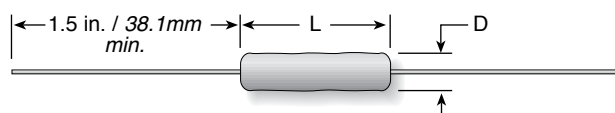
Non-Inductive versions available. Insert "N" before tolerance code.
Example: 83NF2K21

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 ▼	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	---1R0	✓	✓	✓	✓	24.9	---24R9	✓	✓	✓	✓	562	---562	✓	✓	✓	✓	12,100	---12K1	✓	✓	✓	✓					
1.1	---1R1	✓	✓	✓	✓	27.4	---27R4	✓	✓	✓	✓	619	---619	✓	✓	✓	✓	13,300	---13K3	✓	✓	✓	✓					
1.21	---1R21	✓	✓	✓	✓	30.1	---30R1	✓	✓	✓	✓	681	---681	✓	✓	✓	✓	15,000	---15K	✓	✓	✓	✓					
1.330	---1R33	✓	✓	✓	✓	33.2	---33R2	✓	✓	✓	✓	750	---750	✓	✓	✓	✓	16,200	---16K2	✓	✓	✓	✓					
1.5	---1R5	✓	✓	✓	✓	37.4	---37R4	✓	✓	✓	✓	825	---825	✓	✓	✓	✓	18,200	---18K2	✓	✓	✓	✓					
1.62	---1R62	✓	✓	✓	✓	40.2	---40R2	✓	✓	✓	✓	909	---909	✓	✓	✓	✓	20,000	---20K	✓	✓	✓	✓					
1.82	---1R82	✓	✓	✓	✓	45.3	---45R3	✓	✓	✓	✓	1,000	---1K0	✓	✓	✓	✓	22,100	---22K1	✓	✓	✓	✓					
2	---2R0	✓	✓	✓	✓	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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Commercial Grade

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.

Looking for pricing, stock, or lifecycle information?

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-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management