THE DATASHEET OF

83F249

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 83J	RW79U RW69V	3	0.1-20K	200
85F 85J	RW74U RW67V	5	0.1-75K	460
80F 80J	RW78U RW68V	10	0.1-150K	1000

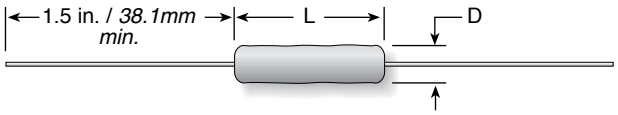
Non-Inductive versions available. Insert "N" before tolerance code. Example: 83NF2K21

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 83J	RW79U RW69V	3	0.593 / 15.1	0.218 / 5.5	20
85F 85J	RW74U RW67V	5	0.937 / 23.8	0.343 / 8.7	18
80F 80J	RW78U RW68V	10	1.842 / 46.8	0.406 /10.3	18

(continued)

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ORDERING INFORMATION

Commercial Grade (80 Series) Part Numbers

Ohmic value	Part No. Prefix ➤ Suffix ▼	Wattage 1 81F	3 83F	5 85F	10 80F
0.1	R10	✔	✔	✔	✔
0.11	R11		✔	✔	✔
0.121	R121	✔	✔	✔	✔
0.133	R133		✔	✣	✔
0.15	R15	✔	✔	✔	✔
0.162	R162		✣	✣	✔
0.182	R182	✔	✔	✔	✔
0.2	R20	✔	✔	✔	✔
0.221	R221		✔	✔	✔
0.249	R249	✔	✔	✔	✔
0.274	R274		✔	✔	✔
0.301	R301	✔	✔	✔	✔
0.332	R332		✔	✣	✔
0.374	R374		✔	✣	✔
0.392	R392		✔	✔	✔
0.402	R402	✔	✔	✔	✔
0.453	R453		✔	✔	✔
0.499	R499	✔	✔	✔	✔
0.511	R511		✔	✣	✣
0.562	R562	✔	✔	✔	✔
0.619	R619		✔	✔	✔
0.681	R681	✔	✔	✔	✔
0.75	R75		✣	✔	✔
0.825	R825	✔	✔	✔	✔
0.909	R909		✔	✣	✔
1	1R0	✔	✔	✔	✔
1.1	1R1		✔	✔	✔
1.21	1R21	✔	✔	✔	✔
1.330	1R33		✣	✔	✔
1.5	1R5	✔	✔	✔	✔
1.62	1R62		✣	✔	✔
1.82	1R82	✔	✔	✔	✔
2	2R0	✔	✔	✔	✔
2.21	2R21		✔	✔	✔
2.49	2R49	✔	✔	✔	✔
2.74	2R74		✔	✔	✔
3.01	3R01	✔	✔	✔	✔
3.32	3R32		✔	✔	✔
3.74	3R74		✔	✔	✔
4.02	4R02	✔	✔	✔	✔
4.53	4R53		✔	✔	✔
4.99	4R99	✔	✔	✔	✔
5.11	5R11		✔	✔	✔
5.62	5R62	✔	✔	✔	✔
6.19	6R19		✔	✔	✔
6.81	6R81	✔	✔	✔	✔
7.5	7R5		✔	✔	✔
8.25	8R25	✔	✔	✣	✔
9.09	9R09		✔	✔	✔
10	10R	✔	✔	✔	✔
11	11R		✔	✔	✔
12.1	12R1	✔	✔	✔	✔
13.3	13R3		✣	✣	✣
15	15R	✔	✔	✔	✣
16.2	16R2		✣	✣	✣
18.2	18R2	✔	✔	✔	✔
20	20R	✔	✔	✔	✔
22.1	22R1		✔	✔	✔
24.9	24R9	✔	✔	✔	✔
27.4	27R4		✔	✔	✔
30.1	30R1	✔	✔	✔	✔
33.2	33R2		✔	✔	✔
37.4	37R4		✔	✣	✔
40.2	40R2	✔	✔	✔	✔
45.3	45R3		✔	✔	✔
49.9	49R9	✔	✔	✔	✔
51.1	51R1		✔	✔	✔
56.2	56R2	✔	✔	✔	✔
61.9	61R9		✔	✔	✔
68.1	68R1	✔	✔	✔	✔
75	75R		✔	✣	✔
82.5	82R5	✔	✔	✔	✔
90.9	90R9		✔	✔	✔
100	100	✔	✔	✔	✔
110	110		✔	✔	✔
121	121	✔	✔	✔	✔
133	133		✣	✔	✣
150	150	✔	✔	✔	✣
162	162		✔	✔	✔
182	182	✔	✔	✔	✔
200	200	✔	✔	✔	✔
221	221		✔	✔	✔
249	249	✔	✔	✔	✔
274	274		✔	✣	✔
301	301	✔	✔	✔	✔
332	332		✔	✔	✔
374	374		✔	✔	✔
402	402	✔	✔	✔	✔
453	453		✔	✔	✔
499	499	✔	✔	✔	✔
511	511		✔	✔	✔
562	562	✔	✔	✔	✔
619	619		✔	✔	✔
681	681	✔	✔	✔	✔
750	750		✔	✔	✔
825	825	✔	✔	✔	✔
909	909		✔	✔	✔
1,000	1K0	✔	✔	✔	✔
1,100	1K1		✣	✔	✔
1,210	1K21	✔	✔	✔	✔
1,330	1K33		✣	✔	✣
1,500	1K5	✔	✔	✔	✣
1,620	1K62		✔	✣	✣
1,820	1K82	✔	✔	✔	✔
2,000	2K0	✔	✔	✔	✔
2,210	2K21		✔	✔	✔
2,490	2K49	✔	✔	✔	✔
2,740	2K74		✔	✔	✔
3,010	3K01	✔	✔	✔	✔
3,320	3K32		✔	✔	✔
3,740	3K74		✔	✔	✔
4,020	4K02		✔	✔	✔
4,530	4K53		✔	✣	✔
4,990	4K99		✔	✔	✔
5,110	5K11		✔	✔	✔
5,620	5K62		✔	✔	✔
6,190	6K19		✔	✔	✔
6,810	6K81		✔	✔	✔
7,500	7K5		✔	✔	✣
8,250	8K25		✔	✔	✔
9,090	9K09		✣	✔	✣
10,000	10K		✔	✔	✔
10,500	10K5		✔	✣	✣
11,000	11K		✔	✣	✣
12,100	12K1		✣	✣	✣
13,300	13K3		✣	✔	✣
15,000	15K		✔	✔	✔
16,200	16K2		✣	✔	✣
18,200	18K2		✣	✔	✣
20,000	20K		✔	✔	✔
22,100	22K1			✔	✔
24,900	24K9			✔	✔
27,400	27K4			✔	✔
30,100	30K1			✔	✔
33,200	33K2			✔	✔
37,400	37K4			✣	✣
38,300	38K3			✔	✣
40,200	40K2			✔	✔
45,300	45K3			✔	✔
49,900	49K9			✔	✔
51,100	51K1			✔	✔
56,200	56K2			✔	✔
61,900	61K9			✔	✣
68,100	68K1			✔	✔
75,000	75K			✔	✔
82,500	82K5				✔
90,900	90K9				✔
100,000	100K				✔
150,000	150K				✔
200,000	200K				✔

✔ = 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 R10

80 Series	Wattage	Tolerance	Resistance Value
Acrasil®	1 = 1W	F= 1%	R10 = 0.10Ω
Silicone Ceramic	2	J = 5%	1R0 = 1.0Ω
Conformal Axial	3		10R = 10.0Ω
Term. Wirewound	5		250 = 250Ω
	0 = 10W		1K0 = 1,000Ω
			4K5 = 4,500Ω
			50K = 50,000Ω

Military Grade

RW74U1001F

RW Series	Resistance Value	Tolerance
Military grade	R100 = 0.1Ω	F = 1%
	1R00 = 1.0Ω	J = 5%
	10R0 = 10.0Ω	
	1000 = 100Ω	1002 = 10KΩ
	1001 = 1000Ω	1503 = 150KΩ

This product will not be made available as RoHS Compliant.

For RoHS Compliant equivalent, see **40 Series.**

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