

40 Series

Ohmicone® Silicone-Ceramic Conformal Axial Terminal Wirewound 1% and 5% Tolerance Standard



Ohmite 40 Series resistors are the most economical conformal silicone-ceramic coated resistors offered. These all-welded units are characterized by their low temperature coefficients and resistance to thermal shock, making them ideal for a wide range of electrical and electronic applications.

Units with 1% and 5% tolerances are identical in construction and electrical specifications. Durable but economical 40 Series resistors exceed industry requirements for quality.

FEATURES

- Economical
- Applications include commercial, industrial and communications equipment
- Stability under high temperature conditions
- All-welded construction
- RoHS compliant; add "E" suffix to part number to specify.

SERIES SPECIFICATIONS

Series	Wattage	Ohms	Voltage
41	1.0	0.10-6K	150
42	2.0	0.10-8K	100
43	3.0	0.10-20K	200
45	5.0	0.10-70K	460
47	7.0	0.10-80K	670
40	10.0	0.10-150K	1000

Non-Inductive versions available. Insert "N" before tolerance code.
Example: 42NJ27R

CHARACTERISTICS

Coating	Conformal silicone-ceramic.
Core	Ceramic.
Terminals	Solder-coated copper clad axial. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
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
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; 1Ω to 9.99Ω: ±50 ppm/°C; 10Ω and over: ±20 ppm/°C
Operating temp. range	-55°C to 275°C

DIMENSIONS

(in./mm max.)



Series	Wattage	Length	Diam.	Lead ga.
41	1.0	0.437 / 11.1	0.125 / 3.2	24
42	2.0	0.406 / 10.3	0.219 / 5.6	20
43	3.0	0.593 / 15.1	0.219 / 5.6	20
45	5.0	0.937 / 23.8	0.343 / 8.7	18
47	7.0	1.280 / 32.5	0.343 / 8.7	18
40	10.0	1.900 / 48.3	0.406 / 10.3	18

(continued)

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ORDERING INFORMATION

Standard part numbers

Wattage and Tolerance											Wattage and Tolerance											Wattage and Tolerance																					
1% Tolerance											5% Tolerance											1% Tolerance											5% Tolerance										
Ohmic value	Part No. Prefix ► Suffix ▼	1	3	5	10	1	2	3	5	10	Ohmic value	Part No. Prefix ► Suffix ▼	1	3	5	10	1	2	3	5	10	Ohmic value	Part No. Prefix ► Suffix ▼	1	3	5	10	1	2	3	5	10											
		41F	43F	45F	40F	41J	42J	43J	45J	40J			41F	43F	45F	40F	41J	42J	43J	45J	40J			41F	43F	45F	40F	41J	42J	43J	45J	40J	41J	42J	43J	45J	40J						
0.1	—R10	✓	✓	✓	✓	✓	✓	✓	✓	✓	68	—68R	✓	✓	✱	✓	✓	✓	✓	✱	2,200	—2K2	✓	✓	✓	✓	✓	✱	✱	✓	✓	✓											
0.15	—R15	✓	✓	✓	✓	✓	✓	✓	✓	✓	75	—75R	✓	✓	✱	✓	✓	✓	✓	✓	2,500	—2K5	✓	✓	✓	✓	✓	✱	✱	✓	✓	✓											
0.2	—R20	✓	✓	✓	✓	✓	✓	✓	✓	✓	82	—82R	✱	✓	✓	✓	✓	✓	✓	✱	2,700	—2K7	✱	✓	✓	✓	✓	✱	✱	✓	✓	✓											
0.25	—R25	✓	✓	✓	✓	✓	✓	✓	✓	✓	100	—100	✓	✓	✓	✓	✓	✓	✓	✓	3,000	—3K0	✓	✱	✓	✓	✓	✓	✱	✱	✓	✓											
0.3	—R30	✓	✓	✓	✓	✓	✓	✓	✓	✓	120	—120	✱	✓	✓	✓	✓	✓	✓	✱	3,300	—3K3	✓	✓	✱	✓	✓	✓	✱	✱	✓	✓											
0.33	—R33					✓		✓	✓	✓	125	—125	✓	✱	✱	✓	✓	✓	✓	✓	3,500	—3K5		✓	✓	✓	✓			✱	✓	✓											
0.4	—R40		✓	✓	✓			✓	✓	✓	150	—150				✱	✓	✓	✓	✓	3,900	—3K9		✓	✓	✓	✓			✓	✓	✓											
0.5	—R50	✓	✓	✓	✓	✓	✓	✓	✓	✓	180	—180	✓	✓	✱	✓	✓	✓	✓	✱	4,000	—4K0	✓	✓	✓	✓	✓			✓	✓	✓											
0.75	—R75	✓	✱	✓	✓	✓	✓	✓	✓	✓	200	—200	✓	✓	✓	✱	✓	✓	✓	✓	4,500	—4K5	✓	✓	✓	✓	✓			✓	✓	✓											
1	—1R0	✓	✓	✓	✓	✓	✓	✓	✓	✓	220	—220	✓	✓	✱	✱	✓	✓	✓	✓	4,700	—4K7		✓	✓	✓	✓			✓	✓	✓											
1.5	—1R5	✓	✓	✓	✓	✓	✓	✓	✓	✓	225	—225	✱	✱	✱	✓	✱	✱	✓	✱	5,000	—5K0		✓	✓	✓	✓			✓	✓	✓											
2	—2R0	✓	✓	✓	✓	✓	✓	✓	✓	✓	250	—250	✓			✓	✓	✓	✓	✓	6,000	—6K0		✓	✓	✓	✓			✓	✓	✓											
2.2	—2R2	✓	✓	✓	✓	✓	✓	✓	✓	✓	270	—270	✓			✱	✓	✓	✱	✓	6,800	—6K8					✓		✓	✓	✱												
3	—3R0	✓	✓	✓	✱	✓	✓	✓	✓	✓	300	—300	✓	✱	✓	✓	✓	✓	✓	✓	7,000	—7K0	✓	✓	✓	✓	✓			✓	✓	✓											
4	—4R0	✓	✓	✓	✓	✓	✓	✓	✓	✓	330	—330	✓	✱	✱	✱	✱	✓	✓	✓	7,500	—7K5		✓	✓	✓	✓			✓	✓	✓											
5	—5R0	✓	✓	✓	✓	✓	✓	✓	✓	✓	350	—350	✓	✱	✓	✱	✓	✱	✓	✱	8,000	—8K0		✓	✱	✓	✓			✓	✓	✓											
7.5	—7R5	✓	✓	✓	✓	✓	✓	✓	✓	✓	390	—390	✱	✓	✓	✱	✓	✓	✓	✓	9,000	—9K0		✱	✓	✱	✱			✓	✱	✓											
10	—10R	✓	✓	✓	✓	✓	✓	✓	✓	✓	400	—400	✓			✓	✓	✓	✓	✓	10,000	—10K		✓	✱	✓	✓			✓	✓	✓											
12	—12R	✱	✓	✓	✱	✓	✓	✓	✓	✓	450	—450	✱	✓	✓	✱	✓	✱	✓	✓	12,000	—12K			✱	✓	✓			✓	✓	✓											
15	—15R	✓	✓	✓	✱	✓	✱	✓	✓	✓	470	—470	✓	✓	✓	✓	✱	✓	✓	✓	13,000	—13K				✓	✓			✓	✓	✓											
18	—18R	✱	✓	✓	✱	✱	✓	✓	✓	✓	500	—500	✓	✓	✓	✓	✓	✓	✓	✓	15,000	—15K		✓	✓	✓	✓			Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.													
20	—20R	✓	✓	✓	✓	✓	✓	✓	✓	✓	560	—560	✓			✓	✓	✱	✓	✓	17,000	—17K		✓	✓	✓	✓																
22	—22R	✓	✓	✓	✓	✓	✓	✓	✓	✓	600	—600	✓			✓	✱	✓	✓	✓	20,000	—20K		✓	✓	✓	✓																
25	—25R	✓	✓	✓	✱	✓	✓	✓	✓	✓	680	—680	✓			✱	✓	✓	✓	✓	22,000	—22K		✓	✓	✓	✓																
27	—27R	✱	✓	✓	✓	✓	✓	✓	✓	✓	750	—750	✓	✓	✓	✓	✓	✱	✓	✓	25,000	—25K		✓	✱	✓	✓																
30	—30R	✓	✓	✓	✓	✱	✓	✱	✓	✓	800	—800	✓	✓	✓	✓	✱	✱	✓	✱	30,000	—30K			✓	✱	✓																
33	—33R	✓	✓	✓	✱	✓			✓	✓	820	—820	✓	✓		✱	✓	✱	✓	✓	33,000	—33K																					
35	—35R	✓	✱	✓	✓	✓	✓	✓	✓	✓	900	—900	✓			✱	✱	✓	✓	✓	35,000	—35K																					
39	—39R	✓	✓	✓	✱	✓			✓	✱	1,000	—1K0	✓	✓	✓	✓	✓	✓	✓	✓	40,000	—40K																					
40	—40R	✓	✓	✓	✓	✱	✱	✱	✓	✓	1,100	—1K1	✱	✱	✓	✓	✱	✓	✓	✓	50,000	—50K					✓																
47	—47R	✓	✓	✓	✱	✓	✓	✓	✓	✓	1,200	—1K2	✓	✓	✱	✓	✱	✱	✓	✓	✓ = Standard values																						
50	—50R	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,500	—1K5	✓			✱	✓	✓	✓	✓	✱ = Non-standard values subject to minimum handling charge per item																						
56	—56R	✓	✓	✓	✱	✓	✓	✓	✓	✓	1,800	—1K8	✓	✱	✱	✱	✓	✱	✓	✓																							
62	—62R	✓	✓	✓	✓	✱	✓	✱	✓	✓	2,000	—2K0	✓	✓	✓	✓	✓	✓	✓	✓																							

Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.

✓ = Standard values

✦ = Non-standard values subject to minimum handling charge per item

40 Series	Non-Inductive Winding	
Ohmicon®	<i>optional</i>	
Silicone Ceramic	(blank= std. winding)	RoHS Compliant
Conformal Axial		
Term. Wirewound		
41 NJR 10 E - T		
		Tape & reel
		<i>optional</i>
Wattage	Tolerance	Resistance
1 = 1W	F = 1%	R10 = 0.10Ω
2	J = 5%	1R0 = 1.0Ω
3		10R = 10.0Ω
5		250 = 250Ω
7		1K0 = 1,000Ω
0 = 10W		4K5 = 4,500Ω
		50K = 50,000Ω
		41: 5000
		42: 1250
		43: 1250
		45: 1000
		47: 500
		40: 500