

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					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		
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				✓	✓							
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 mini-												
56	—56R	✓	✓	✓	✱					✓	1,800	—1K8		✓	✱					✓	✱	mum handling charge per item												
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
Ohmicone®
Silicone Ceramic
Conformal Axial
Term. Wirewound

Non-Inductive
Winding
optional
(blank= std.
winding)

RoHS
Compliant

41NJR10E-T

Wattage
1 = 1W
2
3
5
7
0 = 10W

Tolerance
F = 1%
J = 5%

Resistance
R10 = 0.10Ω
1R0 = 1.0Ω
10R = 10.0Ω
250 = 250Ω
1K0 = 1,000Ω
4K5 = 4,500Ω
50K = 50,000Ω

Tape & reel
optional
pc/reel:
41: 5000
42: 1250
43: 1250
45: 1000
47: 500
40: 500