

# 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

<b>Coating</b>	Conformal silicone-ceramic.
<b>Core</b>	Ceramic.
<b>Terminals</b>	Solder-coated copper clad axial. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
<b>Derating</b>	Linearly from 100% @ +25°C to 0% @ +275°C.
<b>Tolerance</b>	±5% (J type), ±1% (F type) (other tolerances available).
<b>Power rating</b>	Based on 25°C free air rating
<b>Overload</b>	Under 5 watts: 5 times rated wattage for 5 seconds. 5 watts and over: 10 times rated wattage for 5 seconds.
<b>Temperature coefficient</b>	Under 1Ω: ±90 ppm/°C; 1Ω to 9.99Ω: ±50 ppm/°C; 10Ω and over: ±20 ppm/°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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## Ohmicone® Silicone-Ceramic Conformal Axial Terminal Wirewound 1% and 5% Tolerance Standard

### ORDERING INFORMATION

#### Standard part numbers

Ohmic value	Wattage and Tolerance										Ohmic value	Wattage and Tolerance										Ohmic value	Wattage and Tolerance																
	1% Tolerance					5% Tolerance						1% Tolerance					5% Tolerance						1% Tolerance					5% Tolerance											
Part No. Prefix ▶ Suffix ▼	1	3	5	10	1	2	3	5	10	Part No. Prefix ▶ Suffix ▼	1	3	5	10	1	2	3	5	10	Part No. Prefix ▶ Suffix ▼	1	3	5	10	1	2	3	5	10	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 —R10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	220 —220	✓	✓	✓	✓	✓	✓	✓	✓	✓	4,700 —4K7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1.5 —R15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	225 —225	✓	✓	✓	✓	✓	✓	✓	✓	✓	5,000 —5K0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
2 —R20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	250 —250	✓	✓	✓	✓	✓	✓	✓	✓	✓	6,000 —6K0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
2.2 —R22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	270 —270	✓	✓	✓	✓	✓	✓	✓	✓	✓	6,800 —6K8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
3 —R30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	300 —300	✓	✓	✓	✓	✓	✓	✓	✓	✓	7,000 —7K0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
4 —R40	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	330 —330	✓	✓	✓	✓	✓	✓	✓	✓	✓	7,500 —7K5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
5 —R50	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	350 —350	✓	✓	✓	✓	✓	✓	✓	✓	✓	8,000 —8K0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
7.5 —R75	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	390 —390	✓	✓	✓	✓	✓	✓	✓	✓	✓	9,000 —9K0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
10 —R10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	400 —400	✓	✓	✓	✓	✓	✓	✓	✓	✓	10,000 —10K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
12 —R12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	450 —450	✓	✓	✓	✓	✓	✓	✓	✓	✓	12,000 —12K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
15 —R15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	470 —470	✓	✓	✓	✓	✓	✓	✓	✓	✓	13,000 —13K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
18 —R18	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	500 —500	✓	✓	✓	✓	✓	✓	✓	✓	✓	15,000 —15K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
20 —R20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	560 —560	✓	✓	✓	✓	✓	✓	✓	✓	✓	17,000 —17K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
22 —R22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	600 —600	✓	✓	✓	✓	✓	✓	✓	✓	✓	20,000 —20K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
25 —R25	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	680 —680	✓	✓	✓	✓	✓	✓	✓	✓	✓	22,000 —22K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
27 —R27	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	750 —750	✓	✓	✓	✓	✓	✓	✓	✓	✓	25,000 —25K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
30 —R30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	800 —800	✓	✓	✓	✓	✓	✓	✓	✓	✓	30,000 —30K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
33 —R33	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	820 —820	✓	✓	✓	✓	✓	✓	✓	✓	✓	33,000 —33K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
35 —R35	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	900 —900	✓	✓	✓	✓	✓	✓	✓	✓	✓	35,000 —35K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
39 —R39	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,000 —1K0	✓	✓	✓	✓	✓	✓	✓	✓	✓	40,000 —40K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
40 —R40	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,100 —1K1	✓	✓	✓	✓	✓	✓	✓	✓	✓	50,000 —50K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
47 —R47	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,200 —1K2	✓	✓	✓	✓	✓	✓	✓	✓	✓																			
50 —R50	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,500 —1K5	✓	✓	✓	✓	✓	✓	✓	✓	✓																			
56 —R56	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,800 —1K8	✓	✓	✓	✓	✓	✓	✓	✓	✓																			
62 —R62	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	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** — Tape & reel  
*optional*  
 pc/reel:

Wattage	Tolerance	Resistance	41: 5000
1 = 1W	F = 1%	R10 = 0.10Ω	42: 1250
2	J = 5%	1R0 = 1.0Ω	43: 1250
3		10R = 10.0Ω	45: 1000
5		250 = 250Ω	47: 500
7		1K0 = 1,000Ω	40: 500
0 = 10W		4K5 = 4,500Ω	
		50K = 50,000Ω	

