TA Series

Power Chip® Resistors
Thick Film on Alumina Substrate

3, 5, 7.5 & 10 watt

typical PC board
0.07"/1.78mm
0.02" x 0.015" Pins
0.17"/4.32mm
0.10"/2.54mm

25, 50 & 100 watt

0.040" / 1.02 mm
0.240" / 6.10 mm
0.300" / 7.62 mm
0.020" / 0.51 mm typ.
0.070" / 1.78 mm
0.040" / 1.02 mm typ.
0.150" / 3.8 mm ref.
0.200" / 5.08 mm
0.050" / 1.27 mm dia. finished pins
Solder-coated phosphor bronze
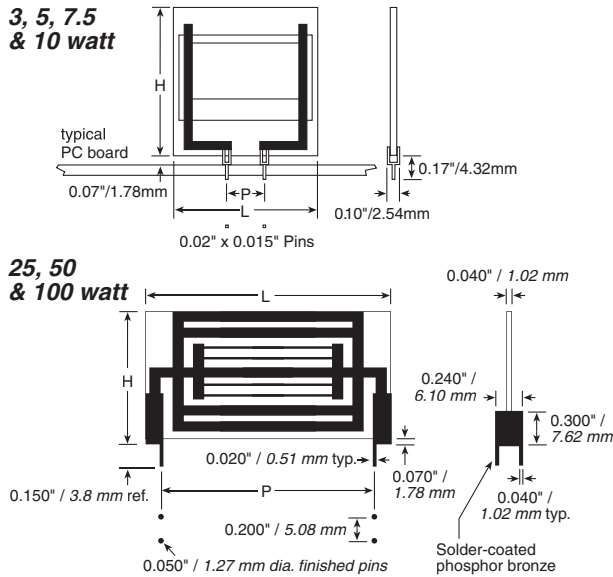
Ohmite's original Power Chip resistors are designed from our thick film on alumina substrate technology. These planar packages yield space saving, 10W/in² power densities that require over 50% less board space than other radial packages. Convection cooling is maximized by the planar package configuration which dissipates heat well above board level.

Ohmite's power chip resistors have a 125% higher operating temperature range than competitive product of similar design. High temperature solder and in-process plating keep terminations secure under self-heating effects by preventing re-flow from full power operation.

Flexible packaging schemes make these resistors ideal for power supplies, audio amplifiers, video fly-back, and other power control applications.

FEATURES
- High-Temp Terminal Construction
- Wide Resistance Range
- Low Inductance (50nH-100nH)
- High Power Density
- Easy to install. PC-mountable

SPECIFICATIONS

Material
Substrate: Alumina
Resistor: Thick Film
Coating: Glass
Terminals: Solder Plated Phosphor Bronze
Thermal Conductivity: 20 Watts/Meter/°C
Temperature Coefficient:

1 ohm	450 ppm/°C
1 to 100Ω	100 ppm/°C
101Ω and up	50 ppm/°C

Electrical
Tolerance: ±1% and ±5% (other tolerances available)
Power Rating: Based on 25°C free air
Resistance Range: 0.5 ohm to 10M ohm. Consult factory for other values
Maximum Operating Voltage: 350 VAC, 500 VDC through glass, 1000 VAC, 1500 VDC through substrate
Overload: Five times rated power, as long as the one second average dissipation does not exceed the wattage rating. ΔR: ±2%, 2000 hours
Derating: 100% @ 25°C to 0% @ 350°C.

Series	Wattage	Dimensions (in. / mm) P	Length L	Height H
TA203	3.0	0.200 / 5.08	0.50 / 12.70	0.60 / 15.24
TA303	3.0	0.300 / 7.62	0.50 / 12.70	0.60 / 15.24
TA205	5.0	0.200 / 5.08	0.50 / 12.70	1.00 / 25.40
TA305	5.0	0.300 / 7.62	0.50 / 12.70	1.00 / 25.40
TA605	5.0	0.600 / 15.24	1.00 / 25.40	0.50 / 12.70
TA805	5.0	0.800 / 20.32	1.00 / 25.40	0.50 / 12.70
TA207	7.5	0.200 / 5.08	0.75 / 19.05	1.00 / 25.40
TA307	7.5	0.300 / 7.62	0.75 / 19.05	1.00 / 25.40
TA310	10.0	0.300 / 7.62	1.00 / 25.40	1.00 / 25.40
TA810	10.0	0.800 / 20.32	1.00 / 25.40	1.00 / 25.40
TA025	25.0	1.90 / 48.3	2.220 / 56.39	1.170 / 29.70
TA050	50.0	1.90 / 48.3	2.220 / 56.39	2.270 / 57.60
TA100	100.0	4.10 / 104.1	4.420 / 112.27	2.270 / 57.60

ORDERING INFORMATION

Pin spacing (on 3-10W models only)
2 = .2"
3 = .3"
8 = .8"

Tolerance
K = 10%
J = 5%
F = 1%

E = RoHS compliant Available Jan. 2006

T A 3 0 5 P A 4 K 5 0 J E

Series

Power Rating:
03 = 3 W
05 = 5
07 = 7.5
10 = 10
025 = 25
050 = 50
100 = 100

Package:
PA = pin terminals, std. for 3-10 W
PW = wraparound, std. for 25-100 W

Resistance Value (Ω)
R250 = 0.25
10R0 = 10.0
2K00 = 2,000
45K0 = 45,000

STOCK PART NUMBERS FOR STANDARD RESISTANCE VALUES

Ohmic value	Part No. Prefix ► / Suffix ▼	TA203PA	TA303PA	TA205PA	TA305PA	TA207PA	TA310PA	TA810PW	TA025PW	TA050PW	TA100PW
0.25	R250J	✤	✔	✔							
1.00	1R00J	✤	✤	✤	✔	✔	✤	✤	✤	✤	✤
1.50	1R50J	✔	✔	✔	✔	✔	✤	✔	✔	✔	✔
2.00	2R00J	✤	✔	✤	✔	✔	✤	✔	✔	✔	✔
4.70	4R70J	✔	✔	✤	✤	✔	✔	✔	✔	✔	✔
5.00	5R00J	✤	✔	✤	✔	✔	✔	✔	✤	✤	✤
5.10	5R10J	✔	✔	✔	✔	✤	✔	✔	✔	✔	✔
7.50	7R50J	✔	✔	✔	✔	✔	✤	✔	✔	✔	✔
8.20	8R20J	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
10.00	10R0J	✤	✤	✤	✔	✤	✤	✤	✤	✤	✤
11.00	11R0J	✔	✔	✤	✔	✔	✔	✔	✔	✔	✔
12.00	12R0J	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
15.00	15R0J	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
20.00	20R0J	✔	✔	✤	✔	✔	✔	✔	✔	✔	✔
24.00	24R0J	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
27.00	27R0J	✤	✔	✔	✔	✔	✔	✔	✔	✔	✔
33.00	33R0J	✔	✔	✔	✔	✤	✔	✔	✔	✔	✔
47.00	47R0J	✔	✤	✔	✔	✔	✔	✔	✔	✔	✔
50.00	50R0J	✤	✤	✤	✤	✔	✔	✤	✤	✤	✤
62.00	62R0J	✔	✔	✔	✤	✔	✔	✔	✔	✔	✔
68.00	68R0J	✔	✔	✔	✔	✤	✔	✤	✔	✔	✔
75.00	75R0J	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
100.00	100RJ	✤	✤	✤	✔	✔	✤	✤	✤	✤	✤
150.00	150RJ	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
200.00	200RJ	✤	✤	✤	✤	✔	✤	✔	✔	✔	✔
250.00	250RJ	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
270.00	270RJ	✔	✔	✤	✔	✔	✤	✔	✔	✔	✔
300.00	300RJ	✤	✔	✤	✔	✔	✔	✔	✔	✔	✔
470.00	470RJ	✤	✔	✤	✔	✔	✔	✤	✔	✔	✔
500.00	560	✤	✔	✤	✔	✔	✔	✤	✤	✤	✤
620.00	620RJ	✔	✔	✔	✔	✔	✤	✔	✔	✔	✔
680.00	680RJ	✔	✔	✔	✔	✔	✔	✤	✔	✔	✔
1,000.00	1K00J	✤	✔	✤	✔	✔	✤	✤	✤	✤	✤
1,500.00	1K50J	✤	✔	✤	✔	✔	✔	✔	✔	✔	✔
1,800.00	1K80J	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
2,000.00	2K00J	✤	✔	✔	✔	✔	✤	✔	✔	✔	✔
2,500.00	2K50J	✔	✔	✤	✔	✔	✔	✔	✔	✔	✔
3,000.00	3K00J	✔	✔	✤	✔	✔	✤	✔	✔	✔	✔
4,000.00	4K00J	✔	✔	✔	✤	✔	✔	✔	✔	✔	✔
4,700.00	4K70J	✤	✤	✤	✤	✔	✔	✔	✔	✔	✔
5,000.00	5K00J	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
5,100.00	5K10J	✔	✔	✔	✤	✔	✔	✔	✔	✔	✔
7,500.00	7K50J	✔	✔	✤	✔	✔	✔	✔	✔	✔	✔
10,000.00	10K0J	✤	✤	✤	✔	✤	✤	✤	✤	✤	✤
15,000.00	15K0J	✔	✔	✤	✔	✤	✔	✔	✔	✔	✔
18,000.00	18K0J	✔	✤	✔	✔	✔	✔	✔	✔	✔	✔
20,000.00	20K0J	✔	✔	✤	✔	✔	✔	✔	✔	✔	✔
30,000.00	30K0J	✔	✔	✤	✔	✔	✔	✔	✔	✔	✔
39,000.00	39K0J	✔	✔	✔	✔	✔	✤	✔	✔	✔	✔
50,000.00	50K0J	✔	✔	✤	✔	✔	✔	✔	✔	✔	✔
75,000.00	75K0J	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
100,000	100KJ	✤	✤	✤	✔	✔	✔	✔	✔	✔	✔
150,000	150KJ	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
200,000	200KJ	✔	✤	✔	✔	✔	✔	✔	✔	✔	✔

✤ = Most popular stock values, ✔ = Stock values, ✤ = Non-stock values subject to minimum handling charge per item