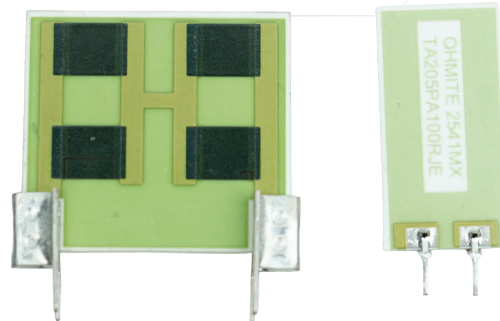


TA Series

Power Chip Thick Film on Alumina Substrate

Ohmite's original Power Chip resistors feature 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 flyback, 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

SERIES SPECIFICATIONS

Series	Wattage	Series	Wattage	Series	Wattage	Series	Wattage	Series	Wattage
TA203	3.0	TA205	5.0	TA207	7.5	TA310	10.0	TA025	25.0
TA303	3.0	TA305	5.0	TA307	7.5	TA810	10.0	TA050	50.0
		TA605	5.0					TA100	100.0
		TA805	5.0						

CHARACTERISTICS

Substrate	Alumina	Test Condition	MILR83401
Resistor	Thick Film	Test	
Coating	Glass	Life (Rated Power)	40°C, rated power, 90 min ON 30 min OFF, 1000 hrs.
Terminals	Solder Plated Phosphor Bronze	Specification	ΔR $\pm(1.0\% + 0.05\Omega)$
Temperature Coefficient	1 ohm: 450 ppm/°C 1 to 100Ω: 100 ppm/°C 101Ω and up: 50 ppm/°C	Life (Moisture Load)	60°C, 90 - 95% RH, rated power, 90 min ON 30 min OFF, 1000 hrs.
Tolerance	$\pm 1\%$, $\pm 5\%$ and $\pm 10\%$	Temperature Cycling	Room temp > -55°C 30 min > RT 10 min $\pm$ 120°C 30 min > RT 10 min 5 cycles
Power Rating	Based on 25°C free air	Flammability	UL94V-O rated (not recognized)
Resistance Range	0.25 ohm to 10M ohm. Consult factory for other values	Soldering Heat	350°C Solderpot, 3 secs.
Maximum Operating Voltage	350 VAC, 500 VDC through glass, 1000 VAC, 1500 VDC through substrate, not to exceed power rating	Insulation Resistance	DC 100V, 1 min
Overload	Five times rated power, as long as the one second average dissipation does not exceed the wattage rating. ΔR : $\pm 2\%$, 2000 hours		Over 1000M ohm
Derating	100% @ 25°C to 0% @ 180°C ambient.		
Equivalent Parallel Capacitance	1.0pf (100 MHz)		
Withstanding Voltage	5000V thru back side		
Operating Temperature Range	-55°C to +180°C		
Overload Current	20 x rated current up to 8 ms ($\Delta R \pm 0.5\%$)		

(continued)

EC#11564

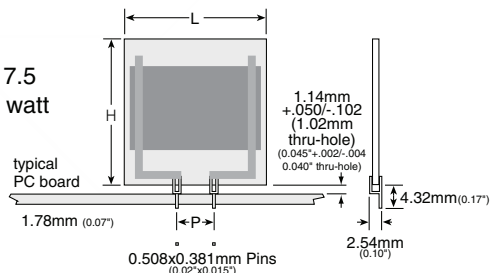
TA Series

Power Chip Thick Film on Alumina Substrate

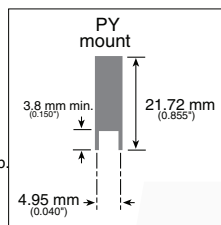
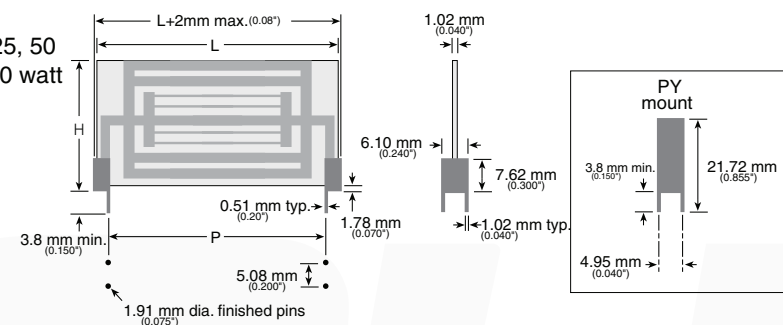
DIMENSIONS

±.508mm/(±.020 in.)

PA
3, 5, 7.5
& 10 watt



PW
10, 25, 50
& 100 watt



Series	Wattage	P	Length L	Height H
TA203PA	3.0	5.08/200	12.70/0.50	15.24/0.60
TA303PA	3.0	7.62/300	12.70/0.50	15.24/0.60
TA205PA	5.0	5.08/200	12.70/0.50	25.40/1.00
TA305PA	5.0	7.62/300	12.70/0.50	25.40/1.00
TA605PA	5.0	15.24/600	25.40/1.00	12.70/0.50
TA805PA	5.0	20.32/800	25.40/1.00	12.70/0.50
TA207PA	7.5	5.08/200	19.05/0.75	25.40/1.00
TA307PA	7.5	7.62/300	19.05/0.75	25.40/1.00
TA310PA	10.0	7.62/300	25.40/1.00	25.40/1.00
TA310PW*	10.0	7.62/300	27.56/1.085	25.40/1.00
TA810PA	10.0	20.32/800	25.40/1.00	25.40/1.00
TA810PW*	10.0	20.32/800	27.56/1.085	25.40/1.00
TA025PA	25.0	48.3/1.90	56.39/2.220	29.70/1.170
TA025PY*	25.0	48.3/1.90	56.39/2.220	29.70/1.170
TA050PA	50.0	48.3/1.90	56.39/2.220	57.60/2.270
TA050PY*	50.0	48.3/1.90	56.39/2.220	57.60/2.270
TA100PA	100.0	104.1/4.10	112.27/4.420	57.60/2.270
TA100PY*	100.0	104.1/4.10	112.27/4.420	57.60/2.270

*10-100 watts available in PW,PA, and PY packages.

ORDERING INFORMATION

Series	Power Rating:	Package:	Resistance Value (Ω)	RoHS compliant
TA	03 = 3 W 05 = 5 07 = 7.5 10 = 10 025 = 25 050 = 50 100 = 100	PA = pin terminals, std. for 3-10 W PW = wraparound, std. for 10-100 W PY = high-stability wraparound	R250 = 0.25 10R0 = 10.0 2K00 = 2,000 45K0 = 45,000	

Standard part numbers for TA series

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

✓ = Most popular standard values, ✓ = Stock values