

# Series 500AS



Type	Length (L)	Resistance Range (Ohms)	Average Power @ 40°C Amb. (Watts)	Peak* Energy @ 40°C Amb. (Joules)	Peak* Voltage** (Volts)	Resistor Weight (Grams)
502AS	2" (51 mm)	5–1,200	12	1,500	8,500	16
503AS	3" (76 mm)	9–2,200	18	2,700	16,000	24
504AS	4" (102 mm)	13–3,200	24	4,000	23,000	32
505AS	5" (127 mm)	17–4,200	30	5,200	30,000	40
506AS	6" (152 mm)	21–5,200	36	6,400	36,000	48
507AS	7" (178 mm)	25–6,200	42	7,700	43,000	56
508AS	8" (203 mm)	29–7,200	48	8,900	50,000	64
509AS	9" (229 mm)	33–8,200	54	10,100	57,000	72
510AS	10" (254 mm)	37–9,200	60	11,400	65,000	80

## SPECIFICATIONS

**Cost-Effective,  
Space-Saving  
Solutions**

\*Based on energy absorption in less than 10 milliseconds. \*\*Allowable peak energy/voltage will depend on the resistance value, consult factory. Peak impulse current rating is 200 amps, consult factory.

## Bulk Ceramic Resistors Advantages

Inherently non-inductive, high reliability due to bulk ceramic design

- Excellent pulse/overload capability
- Slim profile for excellent volumetric power efficiency
- Resistance tolerances 5%, 10%, 20% standard
- Resistance temperature coefficient of +0.00 to - 0.08%/°C
- 230°C maximum operating temperature

## High Energy and Voltage Pulse Typical Applications

- High voltage power supplies
- Capacitor charge/discharge
- Pulse test equipment
- Radar/broadcast transmitters
- Laser/imaging equipment

**SERIES 500AS  
NON-INDUCTIVE BULK CERAMIC SLAB RESISTORS**

Characteristics	
Operating Temperature	-55°C to +230°C
Temperature Coefficient	+0.0 to -0.08%/°C
Short Time Overload: Max. % change after 5 cycles – 10 times rated power, 5 seconds on, 90 seconds off	± 2%
Load Life: Max. % change after 1000 hrs. rated power 1-½ hours on; ½ hour off	± 5%
Thermal Shock: Max. % change after 10 cycles -55°C to +125°C	± 3%
Moisture Resistance: Max. % change when tested per MIL-STD-202, Method 103	± 5%

Typical Physical Properties	
Density	2.2 – 2.4 gm/cc
Specific Heat	0.22 – 0.24 cal/gm°C
Thermal Conductivity	0.003 – 0.006 cal/cm·°C-sec

## Packaged Assemblies

Individual standard components can be packaged in series, parallel, or series/parallel arrays to optimize energy and power dissipation in the available space.

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