

The "A" Series of non-inductive, ceramic composite resistors are designed for a variety of applications where high energy handling capabilities are crucial. These resistors are ideal for any application which is subject to surges, high peak power or impulse energy.

Their unique design allows uniform distribution of energy throughout their structure which results in low thermal stress. The high-temperature, solvent-resistant epoxy coating carries a UL94V0 flammability rating which is suitable for almost any environment.

## FEATURES

- High Surge Energy
- Non-Inductive
- Small Size

## APPLICATIONS

- Motor Drives
- Power Supplies, UPS
- Power Conversion
- In-Rush Current Limiting

## SPECIFICATIONS

### Material

**Resistance Element:** Bulk Ceramic

**Terminals:** Solder coated radial leads (axial lead version available upon request)

**Coating:** UL94V0, solvent resistant epoxy

### Electrical

**Tolerance:** ±10% Standard;

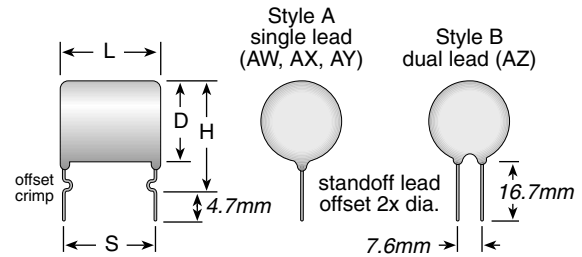
±5% Special Order

**Derating:** Derates linearly from 100% @ 50°C to 0% @ 150°C

**Temperature Rise:** 100°C @ 100% rated power, 50°C ambient

# A Series

## PulsEaters® Ceramic Composition Resistors Available in E12 Ohmic values



AZ style is provided with dual leads

Lead Gauge:  
AW = 20AWG  
AX = 18AWG  
AY = 18AWG  
AZ = 18AWG

## ORDERING INFORMATION

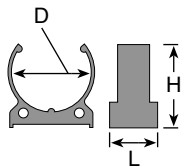
E = RoHS compliant Available Jan. 2006

Size	Ohm Value	Tolerance
AW = 2.5W	Example: 33G = 3.3 Ohms	K = 10% Standard
AX = 3.5W	330 = 33 Ohms	J = 5% Special order
AY = 4.5W	331 = 330 Ohms	
AZ = 5.5W		

Series	Resistance <sup>1</sup> (Ohms)	P avg. <sup>2</sup>	L max. (mm)	D max. (mm)	H max. (mm)	S norm. (mm)	Impulse Voltage <sup>3</sup> (Volts)	Energy <sup>4</sup> (Joule)
AW xxx	4.7 to 15K	2.5	20	13	22	17.5	1500	400
AX xxx	1.0 to 3.3K	3.5	15	21	31	12.5	1000	700
AY xxx	2.2 to 6.8K	4.5	25	21	31	22.5	2000	1400
AZ xxx	1.5 to 4.7K	5.5	30	26	36	27	2500	2800

<sup>1</sup>E12 Standard Values ±10%; <sup>2</sup>Free Air 40°C Ambient; <sup>3</sup>In Air; <sup>4</sup>Single Impulse

## MOUNTING CLIP



This saddle clip conforms to the configuration of Ohmite's A Series resistor to provide secure mounting in the end application. Made of a durable thermoplastic polyester, the saddle clip is designed to secure the A Series in place while safely withstanding its operating temperatures. Use (2) saddle clips per resistor for extra stability.

Part No.	Dim. (mm)	for Series
	D H L	
5911E	20 23 13	AX and AY
5910E	25 26 15	AZ

## STANDARD SPECIFICATIONS

Parameter	Max. ΔR	Test Method
Life Test	+5%	MIL-STD-202F, method 108A, except 50°C, 1000 hrs. @ rated power; 1.5 hrs. ON, 0.5 hrs. OFF
Single Pulse Energy	±1.5%	Single pulse, capacitor discharge at Rated Energy; 350VDC for AW and AX sizes; 650VDC for AY and AZ sizes.
Repetitive HV Pulsing	±2.0%	10 joules @ 5.0KV, 10,000 cycles
Short-time Overload	±1.5%	10x rated power. 5 seconds ON, 5 seconds OFF, 5 cycles
Short-term High Temp	±1.5%	250°C for 30 seconds
Long-term High Temp	±2.0%	1000 hours @ 150°C
Thermal Shock Cycle	±2.0%	MIL-STD-202F, method 107D. -55°C to +125°C, 5 cycles
Moisture Resistance	±1.0%	90% to 95% rh @ 40°C, 1000 hrs.

## A SERIES STOCK VALUES

Ohmic value	Part No. Prefix Suffix	Series	Ohmic value	Part No. Prefix Suffix	Series	Ohmic value	Part No. Prefix Suffix	Series	Ohmic value	Part No. Prefix Suffix	Series
		AW AX AY AZ			AW AX AY AZ			AW AX AY AZ			AW AX AY AZ
1.0	—10GK	✓	5.6	—56GK	✓	33	—330K	✓	220	—221K	✓
1.2	—12GK		6.8	—68GK	✓	39	—390K	✓	270	—271K	✓
1.5	—15GK		8.2	—82GK	✓	47	—470K	✓	330	—331K	✓
1.8	—18GK		10	—100K	✓	56	—560K	✓	390	—391K	✓
2.2	—22GK	✓	12	—120K	✓	68	—680K	✓	470	—471K	✓
2.7	—27GK		15	—150K	✓	82	—820K	✓	560	—561K	✓
3.3	—33GK	✓	18	—180K		100	—101K	✓	680	—681K	✓
3.9	—39GK	✓	22	—220K	✓	120	—121K	✓	820	—821K	✓
4.7	—47GK	✓	27	—270K	✓	150	—151K	✓	1000	—102K	✓
						180	—181K				

✓ = Stock values Non-standard values subject to a minimum handling charge per item.