

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

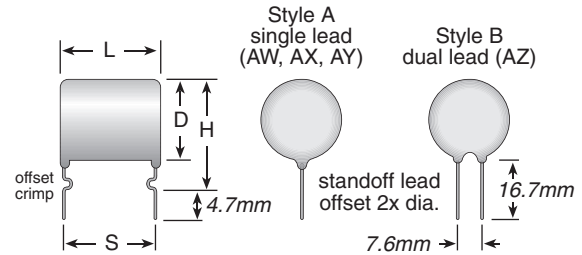
Derating: Derates linearly from 100% @ 50°C to 0% @ 150°C

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

AZ style is provided with dual leads

A Series

PulsEaters® Ceramic Composition Resistors Available in E12 Ohmic values



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

ORDERING INFORMATION

E = RoHS compliant
Available Jan. 2006

A W 5 6 G K E

Size
AW = 2.5W
AX = 3.5W
AY = 4.5W
AZ = 5.5W

Ohm Value
Example:
33G = 33 Ohms
330 = 33 Ohms
331 = 330 Ohms

Tolerance
K = 10% Standard
J = 5% Special order

Series	Resistance ¹ (Ohms)	P avg. ²	L max. (mm)	D max. (mm)	H max. (mm)	S norm. (mm)	Impulse Voltage ³ (Volts)	Energy ⁴ (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

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

STANDARD SPECIFICATIONS

Parameter	Maximum 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
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.