




## Description

The ZA Series of transient voltage surge suppressors are radial leaded varistors (MOVs) designed for use in the protection of low and medium-voltage circuits and systems. Typical applications include motor control, telecom, automotive systems, solenoid, and power supply circuits to protect circuit board components and maintain data integrity.

These devices are available in five model sizes: 5mm, 7mm, 10mm, 14mm and 20mm, and feature a wide  $V_{DC}$  voltage range of 5.5V to 615V.

See ZA Series Device Ratings and Specifications Table for part number and brand information.

## Agency Approvals

Agency	Agency File Number
	E135010, (+ E75961 for selected parts)
	116895E
	42201-006

## Features

- Lead-free and RoHS compliant option available. Please see the device and ratings specifications table for more information.
- Wide operating voltage range  $V_{MIACIRMS}$  4V to 460V
- DC voltage ratings 5.5V to 615V
- No derating up to 85°C ambient
- 5 model sizes available: 5, 7, 10, 14, and 20mm
- Radial lead package for hard-wired or printed circuit board designs
- Available in tape and reel or bulk pack
- Standard lead form options

ZA Series

## Absolute Maximum Ratings

• For ratings of individual members of a series, see Device Ratings and Specifications chart

Continuous	ZA Series	Units
Steady State Applied Voltage:		
AC Voltage Range ( $V_{MIACIRMS}$ )	4 to 460	V
DC Voltage Range ( $V_{MDC}$ )	5.5 to 615	V
Transients:		
Peak Pulse Current ( $I_{TM}$ )		
For 8/20 $\mu$ s Current Wave (See Figure 2)	50 to 6500	A
Single Pulse Energy Range (Note 1)		
For 10/1000 $\mu$ s Current Wave ( $W_{TM}$ )	0.1 to 52	J
Operating Ambient Temperature Range ( $T_A$ )	-55 to +85	°C
Storage Temperature Range ( $T_{STG}$ )	-55 to +125	°C
Temperature Coefficient ( $\alpha^V$ ) of Clamping Voltage ( $V_C$ ) at Specified Test Current	<0.01	%/°C
Hi-Pot Encapsulation (COATING Isolation Voltage Capability) (Dielectric must withstand indicated DC voltage for one minute per MIL-STD-202, Method 301)	2500	V
COATING Insulation Resistance	1000	M $\Omega$

**CAUTION:** Stresses above those listed in "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress only rating and operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied.