

R·A·V surge absorbers are designed to assist in dealing with the problem of power surges. The R·A·V series is a unique new approach which combines the features of two well known technologies. Combining the high speed capabilities of Metal Oxide Varistor (MOV) with the large power handling capability of Gas Arrester, OKAYA has developed a product which can clamp power surges faster than gas arrester alone and handle large power surges far beyond the capability of MOV.

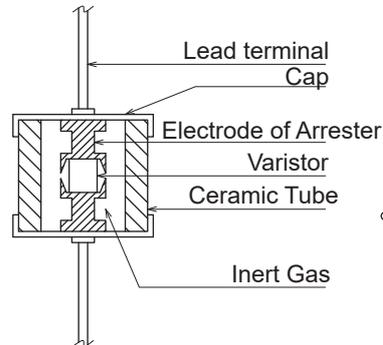
Features

The R·A·V Surge Absorber is applicable for the protection of many types of electrical equipment. The R·A·V has the following features:

- 1) Large capacity surge protection
- 2) Fast response time
- 3) Good endurance to repetitive lightning
- 4) High clipping performance
- 5) Low internal capacitance
- 6) No environmentally hazardous materials

Dynamic Characteristics

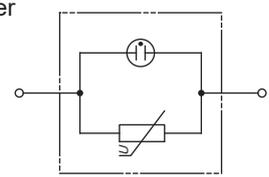
Structure



Symbol

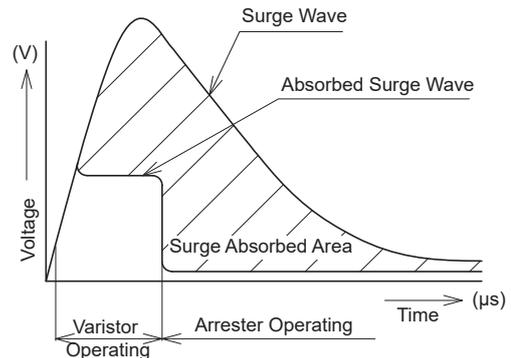


Circuit

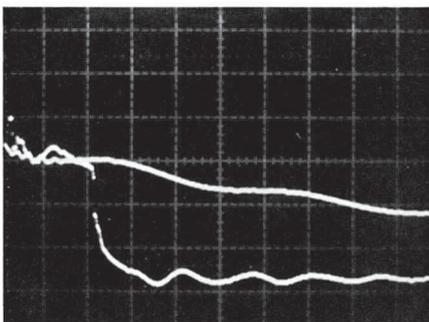


Operating principal

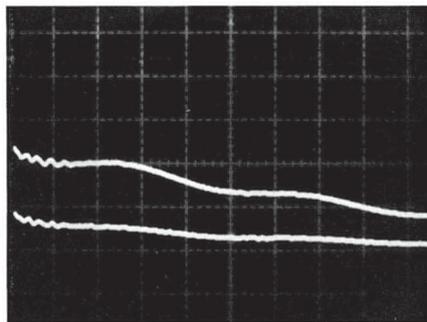
The R·A·V connected between lines will shunt the surge from one side of the line to the other. The high speed varistor quickly shunts the surge until the slower, but more powerful gas arrester takes over. This allows the gas arrester to handle the high energy portion of the surge and protect the MOV from damage. This interaction of the R·A·V assures safe handling of the power surge and long life stability to the MOV.



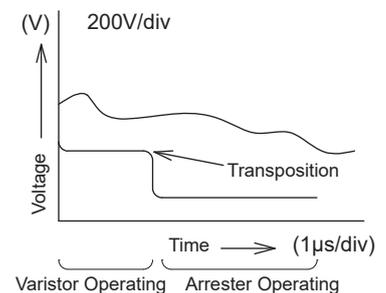
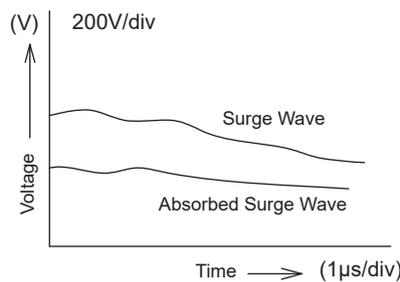
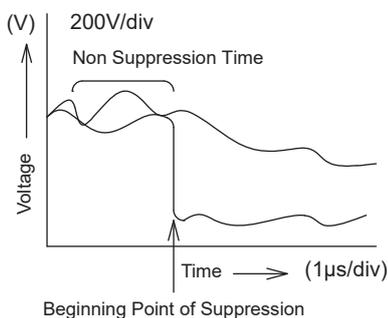
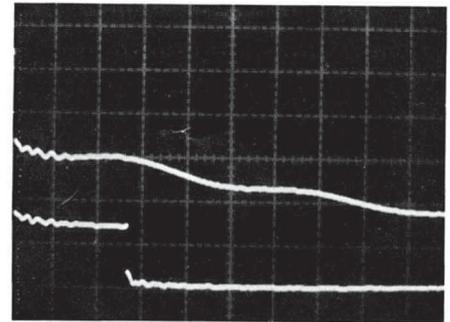
Gas Arrester



ZnO Varistor



R·A·V

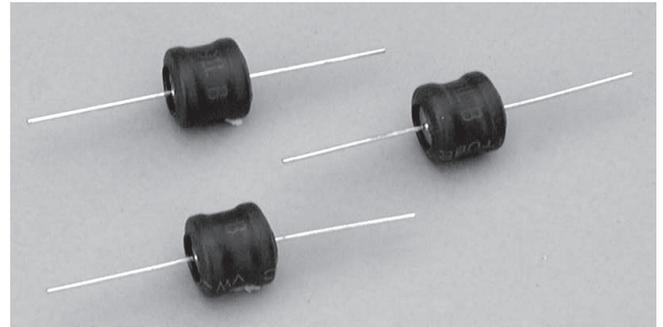
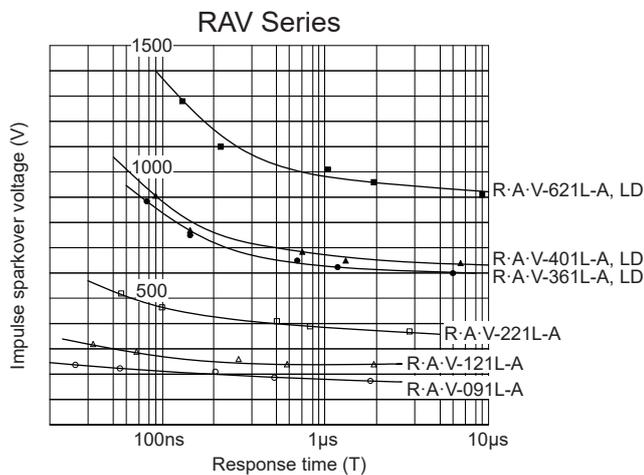


R·A·V·L·A (for protecting network line)

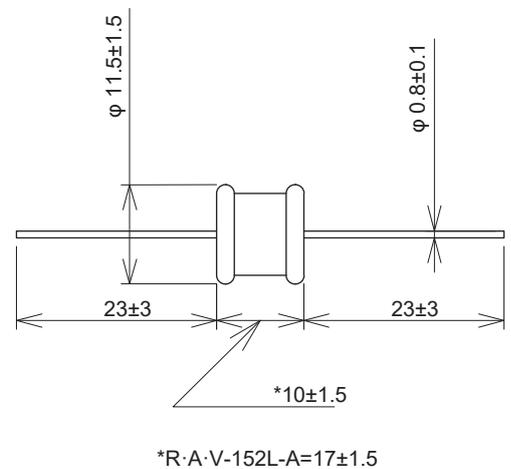
R·A·V was developed to absorb high current surge such as indirect lighting. specially, the R·A·V applied to communication circuits will protect it. The R·A·V is suitable for use with equipment which requires high reliability protection from external surges.

- Response time: 50ns max.
- Life: Possible to absorb 1,000A for 300 times repeatedly (surge wave form: 8/20 μ s)

● V-t Characteristics

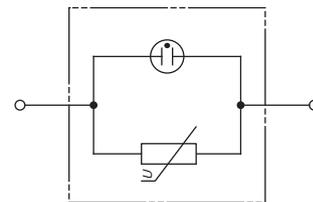


● Dimensions



Unit: mm

● Circuit



Electrical Specifications

Model Number	Clamping Voltage (V) $\pm 10\%$ *1	Impulse Discharge Current 8/20 μ s (A)	Withstanding Impulse Voltage 1.2/50 μ s (V)	Response Time (ns)	Capacitance (pF) *2	
R·A·V-091L-A	90	2,400	20,000	50	150	
R·A·V-121L-A	120				14	
R·A·V-181L-A	180				100	
R·A·V-221L-A	220				60	
R·A·V-361L-A	360				30	
R·A·V-401L-A	400				40	
R·A·V-621L-A	620				30	
R·A·V-901L-A	900				20	
R·A·V-152L-A	1,500					

*1 Equivalent varistor voltage@1mA *2 Reference Value
Operating Temperature: -20~+70°C