

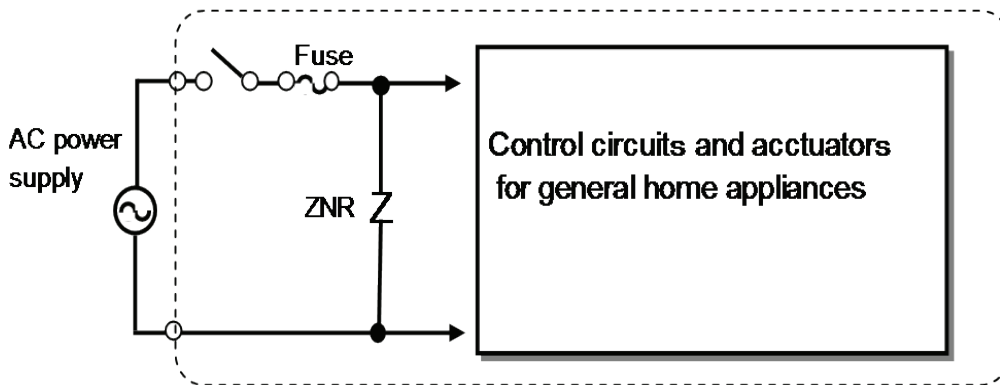
## ZNR Application Note

## Electric Home Appliance

### 1. Industry Segments:

Field of Industry: Electric Home Appliance  
 Product: Power circuits of home appliance, white goods

### 2. Transient Surge Voltage and its Protection by Using ZNR:



#### Aim of ZNR Application:

Protection of power circuits of home appliance against lightning surges

#### Problems with Surge Voltage:

Kind of surge voltage: Induced lightning surge voltage  
 Path of surge voltage: AC power line  
 Failed parts or circuits: Damage of componets in power circuits such as diode bridge, capacitor

#### How to Apply ZNR to Circuit: (Blue Part Numbers Indicate NEW "E-Series")

Connection: AC power line(line-line)

#### ZNR part number selection (representative):

For AC 100V: ERZE07A271 or 471, ERZE08A271 or 471

For AC 200V: ERZE07A471, ERZE08A471

#### Precaution in surge protection designing (Parameters to be considered for ZNR selection):

ZNR should be connected at load side of the fuse with a suitable current rating.

### 3. Relevant Technical Information and References:

JISC60664, IEC60664 Insulation coordination for equipment within low-voltage systems-Part 1:Principles, requirements and tests

### 4. More Information:

Home page for up-to-date information: <http://na.industrial.panasonic.com/products/circuit-thermal-protection/circuit-protection/znr-transientsurge-absorbers>