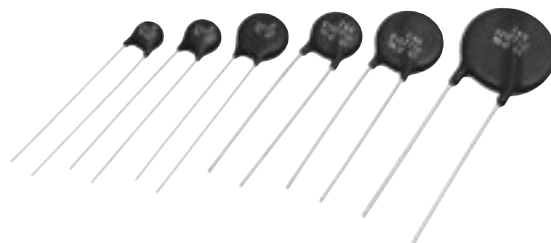


### "ZNR" Transient/Surge Absorbers

Type: **D**

Series: **V**

"ZNR" Transient/Surge Absorber, Series V, Type D features large surge current and energy handling capability for absorbing transient overvoltage in a compact size.



#### ■ Features

- Large withstanding surge current capability in compact sizes
- Large "Energy Handling Capability" absorbing transient overvoltages in compact sizes
- Wide range of varistor voltages
- The standard products shown below have received UL, CSA and VDE standards  
Varistor voltage 82-150V : UL, VDE  
Varistor voltage 200V over : UL, CSA, VDE  
(cf. Application Notes for UL/CSA, VDE recognized parts on page 101 to 102)
- RoHS compliant

#### ■ Related Standards

- UL 1414, UL 1449
- CSA C22.2 No.1 Class 2221 01
- VDE CECC42000, CECC42200, CECC42201, IEC61051
- "Type Designation(UL)", "Part Number(CSA)", "Style Ref. (VDE)"  
Are not registered by product Part No..  
(Refer to page 101, for the details)

#### ■ Recommended Applications

- Transistor, diode, IC, thyristor or triac semiconductor protection
- Surge protection in consumer electronic equipment
- Surge protection in communication, measuring or controller electronics
- Surge protection in electronic home appliances, gas or petroleum appliances
- Relay or electromagnetic valve surge absorption

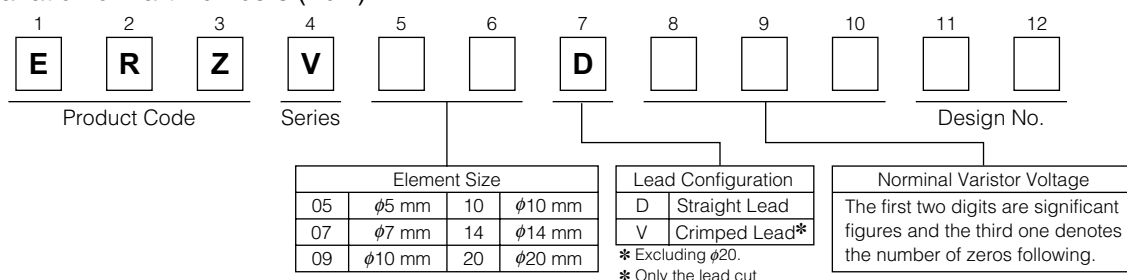
#### ■ Handling Precautions

See Page 114 to 116

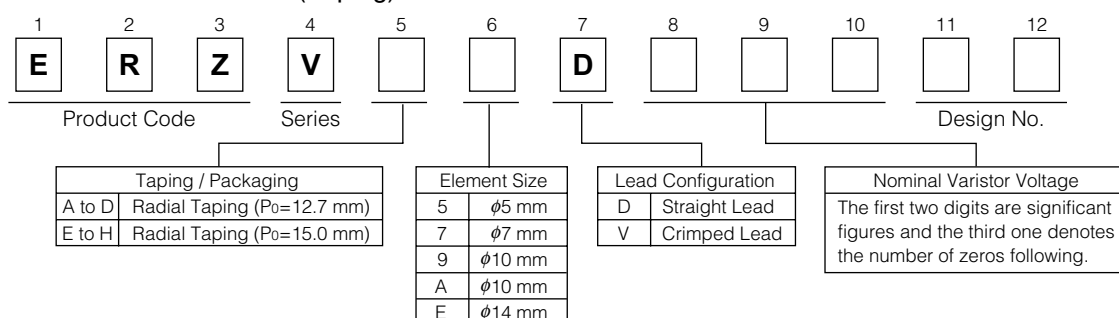
#### ■ Packaging Specifications

See Page 147

#### ■ Explanation of Part Numbers (Bulk)



#### ■ Explanation of Part Numbers (Taping)



### ■ Reference Guide to Standard Products

| Part No.   | Varistor Voltage* | Maximum Allowable Voltage |        | Clamping Voltage @8/20μs |                    | Maximum Energy (J) |      | Maximum Peak Current @8/20μs(A) |         | Recommended Applications                   |
|------------|-------------------|---------------------------|--------|--------------------------|--------------------|--------------------|------|---------------------------------|---------|--------------------------------------------|
|            | (V)               | ACrms (V)                 | DC (V) | max.(V)                  | I <sub>p</sub> (A) | 10/1000 μs         | 2 ms | 1 time                          | 2 times |                                            |
| ERZV05D180 | 18<br>(16–20)     | 11                        | 14     | 40                       | 1                  | 0.6                | 0.4  | 250                             | 125     | For the low voltage circuit                |
| ERZV07D180 |                   |                           |        | 36                       | 2.5                | 1.1                | 0.9  | 500                             | 250     |                                            |
| ERZV09D180 |                   |                           |        | 36                       | 5                  | 2.6                | 2.2  | 1000                            | 500     |                                            |
| ERZV10D180 |                   |                           |        | 36                       | 5                  | 2.6                | 2.2  | 1000                            | 500     |                                            |
| ERZV14D180 |                   |                           |        | 36                       | 10                 | 5.2                | 4.3  | 2000                            | 1000    |                                            |
| ERZV20D180 |                   |                           |        | 36                       | 20                 | 13                 | 12   | 3000                            | 2000    |                                            |
| ERZV05D220 | 22<br>(20–24)     | 14                        | 18     | 48                       | 1                  | 0.7                | 0.5  | 250                             | 125     |                                            |
| ERZV07D220 |                   |                           |        | 43                       | 2.5                | 1.3                | 1.1  | 500                             | 250     |                                            |
| ERZV09D220 |                   |                           |        | 43                       | 5                  | 3.2                | 2.6  | 1000                            | 500     |                                            |
| ERZV10D220 |                   |                           |        | 43                       | 5                  | 3.2                | 2.6  | 1000                            | 500     |                                            |
| ERZV14D220 |                   |                           |        | 43                       | 10                 | 6.3                | 5.3  | 2000                            | 1000    |                                            |
| ERZV20D220 |                   |                           |        | 43                       | 20                 | 16                 | 14   | 3000                            | 2000    |                                            |
| ERZV05D270 | 27<br>(24–30)     | 17                        | 22     | 60                       | 1                  | 0.9                | 0.7  | 250                             | 125     |                                            |
| ERZV07D270 |                   |                           |        | 53                       | 2.5                | 1.6                | 1.3  | 500                             | 250     |                                            |
| ERZV09D270 |                   |                           |        | 53                       | 5                  | 3.9                | 3.2  | 1000                            | 500     |                                            |
| ERZV10D270 |                   |                           |        | 53                       | 5                  | 3.9                | 3.2  | 1000                            | 500     |                                            |
| ERZV14D270 |                   |                           |        | 53                       | 10                 | 7.8                | 6.5  | 2000                            | 1000    |                                            |
| ERZV20D270 |                   |                           |        | 53                       | 20                 | 19                 | 17   | 3000                            | 2000    |                                            |
| ERZV05D330 | 33<br>(30–36)     | 20                        | 26     | 73                       | 1                  | 1.1                | 0.8  | 250                             | 125     |                                            |
| ERZV07D330 |                   |                           |        | 65                       | 2.5                | 2.0                | 1.6  | 500                             | 250     |                                            |
| ERZV09D330 |                   |                           |        | 65                       | 5                  | 4.8                | 4.0  | 1000                            | 500     |                                            |
| ERZV10D330 |                   |                           |        | 65                       | 5                  | 4.8                | 4.0  | 1000                            | 500     |                                            |
| ERZV14D330 |                   |                           |        | 65                       | 10                 | 9.5                | 7.9  | 2000                            | 1000    |                                            |
| ERZV20D330 |                   |                           |        | 65                       | 20                 | 24                 | 21   | 3000                            | 2000    |                                            |
| ERZV05D390 | 39<br>(35–43)     | 25                        | 31     | 86                       | 1                  | 1.2                | 0.9  | 250                             | 125     |                                            |
| ERZV07D390 |                   |                           |        | 77                       | 2.5                | 2.4                | 1.9  | 500                             | 250     |                                            |
| ERZV09D390 |                   |                           |        | 77                       | 5                  | 5.6                | 4.7  | 1000                            | 500     |                                            |
| ERZV10D390 |                   |                           |        | 77                       | 5                  | 5.6                | 4.7  | 1000                            | 500     |                                            |
| ERZV14D390 |                   |                           |        | 77                       | 10                 | 11                 | 9.4  | 2000                            | 1000    |                                            |
| ERZV20D390 |                   |                           |        | 77                       | 20                 | 28                 | 25   | 3000                            | 2000    |                                            |
| ERZV05D470 | 47<br>(42–52)     | 30                        | 38     | 104                      | 1                  | 1.5                | 1.1  | 250                             | 125     |                                            |
| ERZV07D470 |                   |                           |        | 93                       | 2.5                | 2.8                | 2.3  | 500                             | 250     |                                            |
| ERZV09D470 |                   |                           |        | 93                       | 5                  | 6.8                | 5.6  | 1000                            | 500     |                                            |
| ERZV10D470 |                   |                           |        | 93                       | 5                  | 6.8                | 5.6  | 1000                            | 500     |                                            |
| ERZV14D470 |                   |                           |        | 93                       | 10                 | 14                 | 11   | 2000                            | 1000    |                                            |
| ERZV20D470 |                   |                           |        | 93                       | 20                 | 34                 | 30   | 3000                            | 2000    |                                            |
| ERZV05D560 | 56<br>(50–62)     | 35                        | 45     | 123                      | 1                  | 1.8                | 1.3  | 250                             | 125     |                                            |
| ERZV07D560 |                   |                           |        | 110                      | 2.5                | 3.4                | 2.7  | 500                             | 250     |                                            |
| ERZV09D560 |                   |                           |        | 110                      | 5                  | 8.1                | 6.7  | 1000                            | 500     |                                            |
| ERZV10D560 |                   |                           |        | 110                      | 5                  | 8.1                | 6.7  | 1000                            | 500     |                                            |
| ERZV14D560 |                   |                           |        | 110                      | 10                 | 16                 | 13   | 2000                            | 1000    |                                            |
| ERZV20D560 |                   |                           |        | 110                      | 20                 | 41                 | 36   | 3000                            | 2000    |                                            |
| ERZV05D680 | 68<br>(61–75)     | 40                        | 56     | 150                      | 1                  | 2.2                | 1.6  | 250                             | 125     |                                            |
| ERZV07D680 |                   |                           |        | 135                      | 2.5                | 4.1                | 3.3  | 500                             | 250     |                                            |
| ERZV09D680 |                   |                           |        | 135                      | 5                  | 9.8                | 8.2  | 1000                            | 500     |                                            |
| ERZV10D680 |                   |                           |        | 135                      | 5                  | 9.8                | 8.2  | 1000                            | 500     |                                            |
| ERZV14D680 |                   |                           |        | 135                      | 10                 | 20                 | 16   | 2000                            | 1000    |                                            |
| ERZV20D680 |                   |                           |        | 135                      | 20                 | 49                 | 44   | 3000                            | 2000    |                                            |
| ERZV05D820 | 82<br>(74–90)     | 50                        | 65     | 145                      | 5                  | 3.5                | 2.5  | 800                             | 600     | Telephone, Communication Line<br>(DC 48 V) |
| ERZV07D820 |                   |                           |        | 135                      | 10                 | 7                  | 5    | 1750                            | 1250    |                                            |
| ERZV09D820 |                   |                           |        | 135                      | 25                 | 14                 | 10   | 3500                            | 2500    |                                            |
| ERZV10D820 |                   |                           |        | 135                      | 25                 | 14                 | 10   | 3500                            | 2500    |                                            |
| ERZV14D820 |                   |                           |        | 135                      | 50                 | 28                 | 20   | 6000                            | 5000    |                                            |
| ERZV20D820 |                   |                           |        | 135                      | 100                | 56                 | 40   | 10000                           | 7000    |                                            |

\* Measuring Current of Varistor Voltage 5 Series : 0.1 mA, Others: 1 mA

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.  
Should a safety concern arise regarding this product, please be sure to contact us immediately.

### ■ Reference Guide to Standard Products

| Part No.   | Varistor Voltage* | Maximum Allowable Voltage |        | Clamping Voltage @8/20μs |                    | Maximum Energy (J) |      | Maximum Peak Current @8/20μs(A) |         | Recommended Applications                                                      |
|------------|-------------------|---------------------------|--------|--------------------------|--------------------|--------------------|------|---------------------------------|---------|-------------------------------------------------------------------------------|
|            | (V)               | ACrms (V)                 | DC (V) | max.(V)                  | I <sub>p</sub> (A) | 10/1000 μs         | 2 ms | 1 time                          | 2 times |                                                                               |
| ERZV05D101 | 100<br>(90–110)   | 60                        | 85     | 175                      | 5                  | 4                  | 3    | 800                             | 600     | Telephone, Communication Line<br>(DC 48 V)                                    |
| ERZV07D101 |                   |                           |        | 165                      | 10                 | 8.5                | 6    | 1750                            | 1250    |                                                                               |
| ERZV09D101 |                   |                           |        | 165                      | 25                 | 17                 | 12   | 3500                            | 2500    |                                                                               |
| ERZV10D101 |                   |                           |        | 165                      | 25                 | 17                 | 12   | 3500                            | 2500    |                                                                               |
| ERZV14D101 |                   |                           |        | 165                      | 50                 | 35                 | 25   | 6000                            | 5000    |                                                                               |
| ERZV20D101 |                   |                           |        | 165                      | 100                | 70                 | 50   | 10000                           | 7000    |                                                                               |
| ERZV05D121 | 120<br>(108–132)  | 75                        | 100    | 210                      | 5                  | 5                  | 3.5  | 800                             | 600     |                                                                               |
| ERZV07D121 |                   |                           |        | 200                      | 10                 | 10                 | 7    | 1750                            | 1250    |                                                                               |
| ERZV09D121 |                   |                           |        | 200                      | 25                 | 20                 | 14.5 | 3500                            | 2500    |                                                                               |
| ERZV10D121 |                   |                           |        | 200                      | 25                 | 20                 | 14.5 | 3500                            | 2500    |                                                                               |
| ERZV14D121 |                   |                           |        | 200                      | 50                 | 42                 | 30   | 6000                            | 5000    |                                                                               |
| ERZV20D121 |                   |                           |        | 200                      | 100                | 85                 | 60   | 10000                           | 7000    |                                                                               |
| ERZV05D151 | 150<br>(135–165)  | 95                        | 125    | 260                      | 5                  | 6.5                | 4.5  | 800                             | 600     |                                                                               |
| ERZV07D151 |                   |                           |        | 250                      | 10                 | 13                 | 9    | 1750                            | 1250    |                                                                               |
| ERZV09D151 |                   |                           |        | 250                      | 25                 | 25                 | 18   | 3500                            | 2500    |                                                                               |
| ERZV10D151 |                   |                           |        | 250                      | 25                 | 25                 | 18   | 3500                            | 2500    |                                                                               |
| ERZV14D151 |                   |                           |        | 250                      | 50                 | 53                 | 37.5 | 6000                            | 5000    |                                                                               |
| ERZV20D151 |                   |                           |        | 250                      | 100                | 106                | 75   | 10000                           | 7000    |                                                                               |
| ERZV05D201 | 200<br>(185–225)  | 130                       | 170    | 355                      | 5                  | 8.5                | 6    | 800                             | 600     | AC 100 V Line–Line Applications                                               |
| ERZV07D201 |                   |                           |        | 340                      | 10                 | 17.5               | 12.5 | 1750                            | 1250    |                                                                               |
| ERZV09D201 |                   |                           |        | 340                      | 25                 | 35                 | 25   | 3500                            | 2500    |                                                                               |
| ERZV10D201 |                   |                           |        | 340                      | 25                 | 35                 | 25   | 3500                            | 2500    |                                                                               |
| ERZV14D201 |                   |                           |        | 340                      | 50                 | 70                 | 50   | 6000                            | 5000    |                                                                               |
| ERZV20D201 |                   |                           |        | 340                      | 100                | 140                | 100  | 10000                           | 7000    |                                                                               |
| ERZV05D221 | 220<br>(198–242)  | 140                       | 180    | 380                      | 5                  | 9                  | 6.5  | 800                             | 600     |                                                                               |
| ERZV07D221 |                   |                           |        | 360                      | 10                 | 19                 | 13.5 | 1750                            | 1250    |                                                                               |
| ERZV09D221 |                   |                           |        | 360                      | 25                 | 39                 | 27.5 | 3500                            | 2500    |                                                                               |
| ERZV10D221 |                   |                           |        | 360                      | 25                 | 39                 | 27.5 | 3500                            | 2500    |                                                                               |
| ERZV14D221 |                   |                           |        | 360                      | 50                 | 78                 | 55   | 6000                            | 5000    |                                                                               |
| ERZV20D221 |                   |                           |        | 360                      | 100                | 155                | 110  | 10000                           | 7000    |                                                                               |
| ERZV05D241 | 240<br>(216–264)  | 150                       | 200    | 415                      | 5                  | 10.5               | 7.5  | 800                             | 600     | AC 100 V to 120 V, Line–Line Applications                                     |
| ERZV07D241 |                   |                           |        | 395                      | 10                 | 21                 | 15   | 1750                            | 1250    |                                                                               |
| ERZV09D241 |                   |                           |        | 395                      | 25                 | 42                 | 30   | 3500                            | 2500    |                                                                               |
| ERZV10D241 |                   |                           |        | 395                      | 25                 | 42                 | 30   | 3500                            | 2500    |                                                                               |
| ERZV14D241 |                   |                           |        | 395                      | 50                 | 84                 | 60   | 6000                            | 5000    |                                                                               |
| ERZV20D241 |                   |                           |        | 395                      | 100                | 168                | 120  | 10000                           | 7000    |                                                                               |
| ERZV05D271 | 270<br>(247–303)  | 175                       | 225    | 475                      | 5                  | 11                 | 8    | 800                             | 600     |                                                                               |
| ERZV07D271 |                   |                           |        | 455                      | 10                 | 24                 | 17   | 1750                            | 1250    |                                                                               |
| ERZV09D271 |                   |                           |        | 455                      | 25                 | 49                 | 35   | 3500                            | 2500    |                                                                               |
| ERZV10D271 |                   |                           |        | 455                      | 25                 | 49                 | 35   | 3500                            | 2500    |                                                                               |
| ERZV14D271 |                   |                           |        | 455                      | 50                 | 99                 | 70   | 6000                            | 5000    |                                                                               |
| ERZV20D271 |                   |                           |        | 455                      | 100                | 190                | 135  | 10000                           | 7000    |                                                                               |
| ERZV05D331 | 330<br>(297–363)  | 210                       | 270    | 570                      | 5                  | 13                 | 9.5  | 800                             | 600     | AC 100 V to 120 V, Line–Line Applications                                     |
| ERZV07D331 |                   |                           |        | 545                      | 10                 | 28                 | 20   | 1750                            | 1250    |                                                                               |
| ERZV09D331 |                   |                           |        | 545                      | 25                 | 58                 | 42   | 3500                            | 2500    |                                                                               |
| ERZV10D331 |                   |                           |        | 545                      | 25                 | 58                 | 42   | 3500                            | 2500    |                                                                               |
| ERZV14D331 |                   |                           |        | 545                      | 50                 | 115                | 80   | 6000                            | 4500    |                                                                               |
| ERZV20D331 |                   |                           |        | 545                      | 100                | 228                | 160  | 10000                           | 6500    |                                                                               |
| ERZV05D361 | 360<br>(324–396)  | 230                       | 300    | 620                      | 5                  | 16                 | 11   | 800                             | 600     | Telephone Line Applications,<br>(250 V Insulation Resistance Test Applicable) |
| ERZV07D361 |                   |                           |        | 595                      | 10                 | 32                 | 23   | 1750                            | 1250    |                                                                               |
| ERZV09D361 |                   |                           |        | 595                      | 25                 | 65                 | 45   | 3500                            | 2500    |                                                                               |
| ERZV10D361 |                   |                           |        | 595                      | 25                 | 65                 | 45   | 3500                            | 2500    |                                                                               |
| ERZV14D361 |                   |                           |        | 595                      | 50                 | 130                | 90   | 6000                            | 4500    |                                                                               |
| ERZV20D361 |                   |                           |        | 595                      | 100                | 255                | 180  | 10000                           | 6500    |                                                                               |

\* Measuring Current of Varistor Voltage 5 Series : 0.1 mA, Others: 1 mA

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.  
Should a safety concern arise regarding this product, please be sure to contact us immediately.

### ■ Reference Guide to Standard Products

| Part No.       | Varistor Voltage*   | Maximum Allowable Voltage |        | Clamping Voltage @8/20μs |                    | Maximum Energy (J) |      | Maximum Peak Current @8/20μs(A) |         | Recommended Applications                                                              |
|----------------|---------------------|---------------------------|--------|--------------------------|--------------------|--------------------|------|---------------------------------|---------|---------------------------------------------------------------------------------------|
|                | (V)                 | ACrms (V)                 | DC (V) | max.(V)                  | I <sub>p</sub> (A) | 10/1000 μs         | 2 ms | 1 time                          | 2 times |                                                                                       |
| ERZV05D391     | 390<br>(351–429)    | 250                       | 320    | 675                      | 5                  | 17                 | 12   | 800                             | 600     | AC 100 V to 120 V, Line–Line Applications                                             |
| ERZV07D391     |                     |                           |        | 650                      | 10                 | 35                 | 25   | 1750                            | 1250    |                                                                                       |
| ERZV09D391     |                     |                           |        | 650                      | 25                 | 70                 | 50   | 3500                            | 2500    | Telephone Line Applications,<br>(250 V Insulation Resistance Test Applicable)         |
| ERZV10D391     |                     |                           |        | 650                      | 25                 | 70                 | 50   | 3500                            | 2500    |                                                                                       |
| ERZV14D391     |                     |                           |        | 650                      | 50                 | 140                | 100  | 6000                            | 4500    |                                                                                       |
| ERZV20D391     |                     |                           |        | 650                      | 100                | 275                | 195  | 10000                           | 6500    |                                                                                       |
| ERZV05D431     | 430<br>(387–473)    | 275                       | 350    | 745                      | 5                  | 20                 | 13.5 | 800                             | 600     | AC 100 V to 220 V, Line–Line and<br>AC 100 V to 220 V,<br>Line–Ground Applications    |
| ERZV07D431     |                     |                           |        | 710                      | 10                 | 40                 | 27.5 | 1750                            | 1250    |                                                                                       |
| ERZV09D431     |                     |                           |        | 710                      | 25                 | 80                 | 55   | 3500                            | 2500    |                                                                                       |
| ERZV10D431     |                     |                           |        | 710                      | 25                 | 80                 | 55   | 3500                            | 2500    |                                                                                       |
| ERZV14D431     |                     |                           |        | 710                      | 50                 | 155                | 110  | 6000                            | 4500    |                                                                                       |
| ERZV20D431     |                     |                           |        | 710                      | 100                | 303                | 215  | 10000                           | 6500    |                                                                                       |
| ERZV05D471     | 470<br>(423–517)    | 300                       | 385    | 810                      | 5                  | 21                 | 15   | 800                             | 600     | AC 100 V to 220 V, Line–Line and<br>AC 100 V to 220 V,<br>Line–Ground Applications    |
| ERZV07D471     |                     |                           |        | 775                      | 10                 | 42                 | 30   | 1750                            | 1250    |                                                                                       |
| ERZV09D471     |                     |                           |        | 775                      | 25                 | 85                 | 60   | 3500                            | 2500    |                                                                                       |
| ERZV10D471**   |                     |                           |        | 775                      | 25                 | 85                 | 60   | 3500                            | 2500    |                                                                                       |
| ERZV14D471**   |                     |                           |        | 775                      | 50                 | 175                | 125  | 6000                            | 4500    |                                                                                       |
| ERZV20D471**   |                     |                           |        | 775                      | 100                | 350                | 250  | 10000                           | 6500    |                                                                                       |
| ERZV07D511     | 510<br>(459–561)    | 320                       | 410    | 845                      | 10                 | 45                 | 32   | 1750                            | 1250    | AC 100 to 240 V, Line–Line Applications<br>AC 100 to 240 V, Line–Ground Applications  |
| ERZV09D511     |                     |                           |        | 845                      | 25                 | 92                 | 67   | 3500                            | 2500    |                                                                                       |
| ERZV10D511**   |                     |                           |        | 845                      | 25                 | 92                 | 67   | 3500                            | 2500    |                                                                                       |
| ERZV14D511**   |                     |                           |        | 845                      | 50                 | 190                | 136  | 6000                            | 4500    |                                                                                       |
| ERZV20D511**   |                     |                           |        | 845                      | 100                | 382                | 273  | 10000                           | 6500    |                                                                                       |
| ERZV10D621**   | 620<br>(558–682)    | 385                       | 505    | 1025                     | 25                 | 92                 | 67   | 3500                            | 2500    |                                                                                       |
| ERZV14D621**   |                     |                           |        | 1025                     | 50                 | 190                | 136  | 5000                            | 4500    |                                                                                       |
| ERZV20D621**   |                     |                           |        | 1025                     | 100                | 382                | 273  | 7500                            | 6500    |                                                                                       |
| ERZV10D681**   | 680<br>(612–748)    | 420                       | 560    | 1120                     | 25                 | 92                 | 67   | 3500                            | 2500    |                                                                                       |
| ERZV14D681**   |                     |                           |        | 1120                     | 50                 | 190                | 136  | 5000                            | 4500    |                                                                                       |
| ERZV20D681**   |                     |                           |        | 1120                     | 100                | 382                | 273  | 7500                            | 6500    |                                                                                       |
| ERZV10D751**   | 750<br>(675–825)    | 460                       | 615    | 1240                     | 25                 | 100                | 70   | 3500                            | 2500    | AC 380 V, Line–Line and<br>Line–Ground Applications<br>(For DC 500 V Insulating Test) |
| ERZV14D751**   |                     |                           |        | 1240                     | 50                 | 210                | 150  | 5000                            | 4500    |                                                                                       |
| ERZV20D751**   |                     |                           |        | 1240                     | 100                | 420                | 300  | 7500                            | 6500    |                                                                                       |
| ERZV10D821**   | 820<br>(738–902)    | 510                       | 670    | 1355                     | 25                 | 110                | 80   | 3500                            | 2500    |                                                                                       |
| ERZV14D821**   |                     |                           |        | 1355                     | 50                 | 235                | 165  | 5000                            | 4500    |                                                                                       |
| ERZV20D821**   |                     |                           |        | 1355                     | 100                | 460                | 325  | 7500                            | 6500    |                                                                                       |
| ERZV10D911**   | 910<br>(819–1001)   | 550                       | 745    | 1500                     | 25                 | 130                | 90   | 3500                            | 2500    | AC 415 V, Line–Line and<br>Line–Ground Applications<br>(For DC 500 V Insulating Test) |
| ERZV14D911**   |                     |                           |        | 1500                     | 50                 | 255                | 180  | 5000                            | 4500    |                                                                                       |
| ERZV20D911**   |                     |                           |        | 1500                     | 100                | 510                | 360  | 7500                            | 6500    |                                                                                       |
| ERZV10D102**   | 1000<br>(900–1100)  | 625                       | 825    | 1650                     | 25                 | 140                | 100  | 3500                            | 2500    | AC 480 V, Line–Line and<br>Line–Ground Applications<br>(For DC 500 V Insulating Test) |
| ERZV14D102**   |                     |                           |        | 1650                     | 50                 | 280                | 200  | 5000                            | 4500    |                                                                                       |
| ERZV20D102**   |                     |                           |        | 1650                     | 100                | 565                | 400  | 7500                            | 6500    |                                                                                       |
| ERZV10D112**   | 1100<br>(990–1210)  | 680                       | 895    | 1815                     | 25                 | 155                | 110  | 3500                            | 2500    |                                                                                       |
| ERZV14D112**   |                     |                           |        | 1815                     | 50                 | 310                | 220  | 5000                            | 4500    |                                                                                       |
| ERZV20D112**   |                     |                           |        | 1815                     | 100                | 620                | 440  | 7500                            | 6500    |                                                                                       |
| ERZV10D182CS** | 1800<br>(1700–1980) | 1000                      | 1465   | 2970                     | 25                 | 247                | 183  | 3500                            | 2500    | Line–Ground Applications<br>(For AC 1200 V Withstanding Test)                         |
| ERZV14D182CS** |                     |                           |        | 2970                     | 50                 | 510                | 360  | 5000                            | 4500    |                                                                                       |
| ERZV20D182**   |                     |                           |        | 2970                     | 100                | 1020               | 720  | 7500                            | 6500    |                                                                                       |

\* Measuring Current of Varistor Voltage 5 Series : 0.1 mA, Others: 1 mA

\*\* example IEC60065Ed7 (Audio, video and similar electronic.)