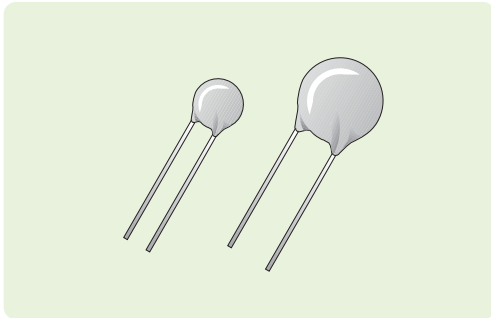


CERAMATE type GNR

A comprehensive range of voltage dependent, metal oxide semiconductor devices (varistors) designed to protect equipment against transient voltage spikes. Connected directly across the supply rails, they offer a convenient and simple solution to transient suppression. Epoxy coated disc construction with radial leads.

N.B. A varistor remains high impedance (non-operative) during normal standby use. When a voltage spike is encountered the impedance rapidly drops to a very low level, clamping the transient voltage to an acceptable level. The varistor absorbs the unwanted energy thereby protecting voltage sensitive components against damage.

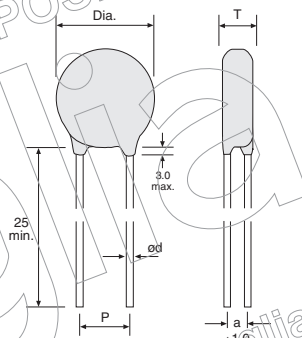


- ◆ Broad range
- ◆ Choice of voltage & energy ratings
- ◆ Fast response
- ◆ Protect voltage sensitive components against damage
- ◆ Convenient and simple solution to transient suppression
- ◆ Body colour **Blue**
- ◆ Option of pitch on 20mm disc types
- ◆ Very competitively priced

Specification

| | |
|---------------------------------------|-----------------|
| Storage temperature range | -40°C to +125°C |
| Operating temperature range | -40°C to +85°C |
| Response time | <50ns |
| Voltage coefficient/temperature | -0.05%/°C |
| Insulation resistance | ≥1000MΩ at 500V |
| Insulation voltage | |
| ≤330V nom. varistor voltage | 1000Vrms |
| >330V nom. varistor voltage | 1500Vrms |

Dimensions (mm)



| | Dia. max. | P | od |
|-----------------|-----------|-----|-----|
| GNR05D- | 7.5 | 5 | 0.6 |
| GNR07D- | 9.0 | 5 | 0.6 |
| GNR10D- | 14.0 | 7.5 | 0.8 |
| GNR14D- | 17.5 | 7.5 | 0.8 |
| GNR20D-1 | 24 | 7.5 | 0.8 |
| GNR20D- | 24 | 10 | 1.0 |

Dims 'a' and 'T' see main listing on pages 324 to 326.

| APPROVAL | COMMENTS | APPLICABLE TYPES | FILE NO. | STANDARD |
|----------|---|---|------------|----------------------|
| | Recognised as "isolated circuit protectors" | All varistors up to, and including 820V nom. | E187844 | UL497B |
| | Recognised as "transient voltage surge suppressors" | 82V to 820V nom. (inclusive) | E166389 | UL1449 (2nd edition) |
| | Recognised as "across the line components" | 200V to 820V nom. (inclusive) | E181368(N) | UL1414 |
| | Recognised as "accessories and parts for electronic components" | 200V to 470V nom. (inclusive) | LR-105317 | C22,21-01 |
| | Recognised as "surge suppression varistors" | 7mm models - 82V to 470V nom. (inclusive) 14mm models - 82V to 510V nom. (inclusive) | - | CECC 42000 |

For the very latest information and news on the full range of CERAMATE products available from Anglia, visit our website :
www.anglia.com/ceramate
 Alternatively, contact our Sales Desk to discuss your specific requirements.

Also available to special order :

- Other lead styles
- Non-flammable types
- Taped product

GNR main listing shown overleaf > > >

CERAMATE type GNR

MAIN LISTING



| Max. Operating Voltage (V) | | Varistor Voltage (V) Tolerance | | | Max. Clamping Voltage | | Withstanding Surge Current | | Rated Power (W) | Energy Absorption (10/1000µs) (J) | Typ. Cap. (1kHz) (pF) | Dimensions (mm) | | | Manf. Part No. & Anglia Order Code |
|----------------------------|-----|--------------------------------|------|------|-----------------------|-------------|----------------------------|--------|-----------------|-----------------------------------|-----------------------|-----------------|-------|-----|------------------------------------|
| rms | dc | Nom. | Min. | Max. | (V) at (A) | 1 Surge (A) | 2 Surges (A) | T max. | | | | a | Pitch | | |
| 11 | 14 | 18 | 16 | 20 | 40 | 1 | 100 | 50 | 0.01 | 0.4 | 1200 | 3.4 | 1.6 | 5 | GNR05D180K |
| 11 | 14 | 18 | 16 | 20 | 36 | 2.5 | 250 | 125 | 0.02 | 0.9 | 2600 | 3.4 | 1.6 | 5 | GNR07D180K |
| 11 | 14 | 18 | 16 | 20 | 36 | 5 | 500 | 250 | 0.05 | 2.1 | 5200 | 3.8 | 1.8 | 7.5 | GNR10D180K |
| 11 | 14 | 18 | 16 | 20 | 36 | 10 | 1000 | 500 | 0.1 | 4 | 13000 | 3.9 | 1.8 | 7.5 | GNR14D180K |
| 14 | 18 | 22 | 20 | 24 | 48 | 1 | 100 | 50 | 0.01 | 0.5 | 940 | 3.6 | 1.8 | 5 | GNR05D220K |
| 14 | 18 | 22 | 20 | 24 | 43 | 2.5 | 250 | 125 | 0.02 | 1.1 | 2050 | 3.6 | 1.8 | 5 | GNR07D220K |
| 14 | 18 | 22 | 20 | 24 | 43 | 5 | 500 | 250 | 0.05 | 2.5 | 4150 | 4 | 2 | 7.5 | GNR10D220K |
| 14 | 18 | 22 | 20 | 24 | 43 | 10 | 1000 | 500 | 0.1 | 5 | 10500 | 4.1 | 2 | 7.5 | GNR14D220K |
| 17 | 22 | 27 | 24 | 30 | 60 | 1 | 100 | 50 | 0.01 | 0.6 | 700 | 3.9 | 2.1 | 5 | GNR05D270K |
| 17 | 22 | 27 | 24 | 30 | 53 | 2.5 | 250 | 125 | 0.02 | 1.4 | 1630 | 3.9 | 2.1 | 5 | GNR07D270K |
| 17 | 22 | 27 | 24 | 30 | 53 | 5 | 500 | 250 | 0.05 | 3 | 3450 | 4.3 | 2.3 | 7.5 | GNR10D270K |
| 17 | 22 | 27 | 24 | 30 | 53 | 10 | 1000 | 500 | 0.1 | 6 | 8600 | 4.4 | 2.3 | 7.5 | GNR14D270K |
| 20 | 26 | 33 | 30 | 36 | 73 | 1 | 100 | 50 | 0.01 | 0.8 | 650 | 3.2 | 1.4 | 5 | GNR05D330K |
| 20 | 26 | 33 | 30 | 36 | 65 | 2.5 | 250 | 125 | 0.02 | 1.7 | 1260 | 3.2 | 1.4 | 5 | GNR07D330K |
| 20 | 26 | 33 | 30 | 36 | 65 | 5 | 500 | 250 | 0.05 | 4 | 3110 | 3.6 | 1.6 | 7.5 | GNR10D330K |
| 20 | 26 | 33 | 30 | 36 | 65 | 10 | 1000 | 500 | 0.1 | 7.5 | 7500 | 3.7 | 1.6 | 7.5 | GNR14D330K |
| 25 | 31 | 39 | 35 | 43 | 86 | 1 | 100 | 50 | 0.01 | 0.9 | 570 | 3.4 | 1.6 | 5 | GNR05D390K |
| 25 | 31 | 39 | 35 | 43 | 77 | 2.5 | 250 | 125 | 0.02 | 2.1 | 1350 | 3.4 | 1.6 | 5 | GNR07D390K |
| 25 | 31 | 39 | 35 | 43 | 77 | 5 | 500 | 250 | 0.05 | 4.6 | 2630 | 3.8 | 1.8 | 7.5 | GNR10D390K |
| 25 | 31 | 39 | 35 | 43 | 77 | 10 | 1000 | 500 | 0.1 | 8.6 | 6500 | 3.9 | 1.8 | 7.5 | GNR14D390K |
| 30 | 38 | 47 | 42 | 52 | 104 | 1 | 100 | 50 | 0.01 | 1.1 | 450 | 3.6 | 1.8 | 5 | GNR05D470K |
| 30 | 38 | 47 | 42 | 52 | 93 | 2.5 | 250 | 125 | 0.02 | 2.5 | 1150 | 3.6 | 1.8 | 5 | GNR07D470K |
| 30 | 38 | 47 | 42 | 52 | 93 | 5 | 500 | 250 | 0.05 | 5.5 | 2140 | 4 | 2 | 7.5 | GNR10D470K |
| 30 | 38 | 47 | 42 | 52 | 93 | 10 | 1000 | 500 | 0.1 | 10 | 5500 | 4.1 | 2 | 7.5 | GNR14D470K |
| 35 | 45 | 56 | 50 | 62 | 123 | 1 | 100 | 50 | 0.01 | 1.3 | 400 | 3.8 | 2 | 5 | GNR05D560K |
| 35 | 45 | 56 | 50 | 62 | 110 | 2.5 | 250 | 125 | 0.02 | 3.1 | 920 | 3.8 | 2 | 5 | GNR07D560K |
| 35 | 45 | 56 | 50 | 62 | 110 | 5 | 500 | 250 | 0.05 | 7 | 1820 | 4.2 | 2.2 | 7.5 | GNR10D560K |
| 35 | 45 | 56 | 50 | 62 | 110 | 10 | 1000 | 500 | 0.1 | 11 | 4500 | 4.3 | 2.2 | 7.5 | GNR14D560K |
| 40 | 56 | 68 | 61 | 75 | 150 | 1 | 100 | 50 | 0.01 | 1.6 | 560 | 3.6 | 1.8 | 5 | GNR05D680K |
| 40 | 56 | 68 | 61 | 75 | 135 | 2.5 | 250 | 125 | 0.02 | 3.6 | 1200 | 3.6 | 1.8 | 5 | GNR07D680K |
| 40 | 56 | 68 | 61 | 75 | 135 | 5 | 500 | 250 | 0.05 | 8.2 | 2080 | 4 | 2 | 7.5 | GNR10D680K |
| 40 | 56 | 68 | 61 | 75 | 135 | 10 | 1000 | 500 | 0.1 | 14 | 5280 | 4.1 | 2 | 7.5 | GNR14D680K |
| 50 | 65 | 82 | 74 | 90 | 145 | 5 | 400 | 200 | 0.1 | 2.5 | 450 | 3.2 | 1.4 | 5 | GNR05D820K |
| 50 | 65 | 82 | 74 | 90 | 135 | 10 | 1200 | 600 | 0.25 | 5.5 | 800 | 3.2 | 1.4 | 5 | GNR07D820K |
| 50 | 65 | 82 | 74 | 90 | 135 | 25 | 2500 | 1250 | 0.4 | 12 | 2700 | 3.6 | 1.6 | 7.5 | GNR10D820K |
| 50 | 65 | 82 | 74 | 90 | 135 | 50 | 4500 | 2500 | 0.6 | 22 | 4350 | 3.7 | 1.6 | 7.5 | GNR14D820K |
| 50 | 65 | 82 | 74 | 90 | 135 | 100 | 6500 | 4000 | 1 | 38 | 8250 | 4.1 | 1.8 | 7.5 | GNR20D820KA |
| 50 | 65 | 82 | 74 | 90 | 135 | 100 | 6500 | 4000 | 1 | 38 | 8250 | 4.1 | 1.8 | 10 | GNR20D820K |
| 60 | 85 | 100 | 90 | 110 | 175 | 5 | 400 | 200 | 0.1 | 3 | 400 | 3.4 | 1.6 | 5 | GNR05D101K |
| 60 | 85 | 100 | 90 | 110 | 165 | 10 | 1200 | 600 | 0.25 | 6.5 | 810 | 3.4 | 1.6 | 5 | GNR07D101K |
| 60 | 85 | 100 | 90 | 110 | 165 | 25 | 2500 | 1250 | 0.4 | 15 | 1880 | 3.8 | 1.8 | 7.5 | GNR10D101K |
| 60 | 85 | 100 | 90 | 110 | 165 | 50 | 4500 | 2500 | 0.6 | 28 | 3500 | 3.9 | 1.8 | 7.5 | GNR14D101K |
| 60 | 85 | 100 | 90 | 110 | 165 | 100 | 6500 | 4000 | 1 | 45 | 8000 | 4.3 | 2 | 7.5 | GNR20D101KA |
| 60 | 85 | 100 | 90 | 110 | 165 | 100 | 6500 | 4000 | 1 | 45 | 8000 | 4.3 | 2 | 10 | GNR20D101K |
| 75 | 100 | 120 | 108 | 132 | 210 | 5 | 400 | 200 | 0.1 | 4 | 350 | 3.6 | 1.8 | 5 | GNR05D121K |
| 75 | 100 | 120 | 108 | 132 | 200 | 10 | 1200 | 600 | 0.25 | 7.8 | 700 | 3.6 | 1.8 | 5 | GNR07D121K |
| 75 | 100 | 120 | 108 | 132 | 200 | 25 | 2500 | 1250 | 0.4 | 18 | 1530 | 4 | 2 | 7.5 | GNR10D121K |
| 75 | 100 | 120 | 108 | 132 | 200 | 50 | 4500 | 2500 | 0.6 | 32 | 2830 | 4.1 | 2 | 7.5 | GNR14D121K |
| 75 | 100 | 120 | 108 | 132 | 200 | 100 | 6500 | 4000 | 1 | 55 | 6200 | 4.5 | 2.2 | 7.5 | GNR20D121KA |
| 75 | 100 | 120 | 108 | 132 | 200 | 100 | 6500 | 4000 | 1 | 55 | 6200 | 4.5 | 2.2 | 10 | GNR20D121K |

continued on next page

CERAMATE type GNR
MAIN LISTING (cont.)


| Max. Operating Voltage (V) | | Varistor Voltage (V) Tolerance | | | Max. Clamping Voltage | | Withstanding Surge Current | | Rated Power (W) | Energy Absorption (10/1000µs) (J) | Typ. Cap. (1kHz) (pF) | Dimensions (mm) | | | Manf. Part No. & anglia Order Code |
|----------------------------|-----|--------------------------------|------|------|-----------------------|--------|----------------------------|--------------|-----------------|-----------------------------------|-----------------------|-----------------|-----|-------|------------------------------------|
| rms | dc | Nom. | Min. | Max. | (V) | at (A) | 1 Surge (A) | 2 Surges (A) | | | | T max. | a | Pitch | |
| 95 | 125 | 150 | 135 | 165 | 260 | 5 | 400 | 200 | 0.1 | 4.8 | 300 | 3.9 | 2.1 | 5 | GNR05D151K |
| 95 | 125 | 150 | 135 | 165 | 250 | 10 | 1200 | 600 | 0.25 | 9.7 | 520 | 3.9 | 2.1 | 5 | GNR07D151K |
| 95 | 125 | 150 | 135 | 165 | 250 | 25 | 2500 | 1250 | 0.4 | 22 | 1100 | 4.3 | 2.3 | 7.5 | GNR10D151K |
| 95 | 125 | 150 | 135 | 165 | 250 | 50 | 4500 | 2500 | 0.6 | 40 | 2600 | 4.4 | 2.3 | 7.5 | GNR14D151K |
| 95 | 125 | 150 | 135 | 165 | 250 | 100 | 6500 | 4000 | 1 | 70 | 5280 | 4.8 | 2.5 | 7.5 | GNR20D151KA |
| 95 | 125 | 150 | 135 | 165 | 250 | 100 | 6500 | 4000 | 1 | 70 | 5280 | 4.8 | 2.5 | 10 | GNR20D151K |
| 115 | 150 | 180 | 162 | 198 | 320 | 5 | 400 | 200 | 0.1 | 6 | 130 | 3.3 | 1.5 | 5 | GNR05D181K |
| 115 | 150 | 180 | 162 | 198 | 300 | 10 | 1200 | 600 | 0.25 | 11 | 210 | 3.3 | 1.5 | 5 | GNR07D181K |
| 115 | 150 | 180 | 162 | 198 | 300 | 25 | 2500 | 1250 | 0.4 | 27 | 450 | 3.7 | 1.7 | 7.5 | GNR10D181K |
| 115 | 150 | 180 | 162 | 198 | 300 | 50 | 4500 | 2500 | 0.6 | 50 | 800 | 3.8 | 1.7 | 7.5 | GNR14D181K |
| 115 | 150 | 180 | 162 | 198 | 300 | 100 | 6500 | 4000 | 1 | 85 | 1800 | 4.2 | 1.9 | 7.5 | GNR20D181KA |
| 115 | 150 | 180 | 162 | 198 | 300 | 100 | 6500 | 4000 | 1 | 85 | 1800 | 4.2 | 1.9 | 10 | GNR20D181K |
| 130 | 170 | 200 | 185 | 225 | 355 | 5 | 400 | 200 | 0.1 | 6.5 | 120 | 3.4 | 1.6 | 5 | GNR05D201K |
| 130 | 170 | 200 | 185 | 225 | 340 | 10 | 1200 | 600 | 0.25 | 13 | 200 | 3.4 | 1.6 | 5 | GNR07D201K |
| 130 | 170 | 200 | 185 | 225 | 340 | 25 | 2500 | 1250 | 0.4 | 30 | 430 | 3.8 | 1.8 | 7.5 | GNR10D201K |
| 130 | 170 | 200 | 185 | 225 | 340 | 50 | 4500 | 2500 | 0.6 | 57 | 770 | 3.9 | 1.8 | 7.5 | GNR14D201K |
| 130 | 170 | 200 | 185 | 225 | 340 | 100 | 6500 | 4000 | 1 | 95 | 1700 | 4.3 | 1.8 | 7.5 | GNR20D201KA |
| 130 | 170 | 200 | 185 | 225 | 340 | 100 | 6500 | 4000 | 1 | 95 | 1700 | 4.3 | 2 | 10 | GNR20D201K |
| 140 | 180 | 220 | 198 | 242 | 380 | 5 | 400 | 200 | 0.1 | 7 | 110 | 3.5 | 1.7 | 5 | GNR05D221K |
| 140 | 180 | 220 | 198 | 242 | 360 | 10 | 1200 | 600 | 0.25 | 14 | 190 | 3.5 | 1.7 | 5 | GNR07D221K |
| 140 | 180 | 220 | 198 | 242 | 360 | 25 | 2500 | 1250 | 0.4 | 32 | 410 | 3.9 | 1.9 | 7.5 | GNR10D221K |
| 140 | 180 | 220 | 198 | 242 | 360 | 50 | 4500 | 2500 | 0.6 | 60 | 740 | 4 | 1.9 | 7.5 | GNR14D221K |
| 140 | 180 | 220 | 198 | 242 | 360 | 100 | 6500 | 4000 | 1 | 100 | 1600 | 4.4 | 1.9 | 7.5 | GNR20D221KA |
| 140 | 180 | 220 | 198 | 242 | 360 | 100 | 6500 | 4000 | 1 | 100 | 1600 | 4.4 | 2.1 | 10 | GNR20D221K |
| 150 | 200 | 240 | 216 | 264 | 415 | 5 | 400 | 200 | 0.1 | 8 | 100 | 3.6 | 1.8 | 5 | GNR05D241K |
| 150 | 200 | 240 | 216 | 264 | 395 | 10 | 1200 | 600 | 0.25 | 15 | 170 | 3.6 | 1.8 | 5 | GNR07D241K |
| 150 | 200 | 240 | 216 | 264 | 395 | 25 | 2500 | 1250 | 0.4 | 35 | 380 | 4 | 2 | 7.5 | GNR10D241K |
| 150 | 200 | 240 | 216 | 264 | 395 | 50 | 4500 | 2500 | 0.6 | 63 | 700 | 4.1 | 2 | 7.5 | GNR14D241K |
| 150 | 200 | 240 | 216 | 264 | 395 | 100 | 6500 | 4000 | 1 | 108 | 1500 | 4.5 | 2 | 7.5 | GNR20D241KA |
| 150 | 200 | 240 | 216 | 264 | 395 | 100 | 6500 | 4000 | 1 | 108 | 1500 | 4.5 | 2.2 | 10 | GNR20D241K |
| 175 | 225 | 270 | 247 | 303 | 475 | 5 | 400 | 200 | 0.1 | 8.5 | 90 | 3.7 | 1.9 | 5 | GNR05D271K |
| 175 | 225 | 270 | 247 | 303 | 455 | 10 | 1200 | 600 | 0.25 | 18 | 150 | 3.7 | 1.9 | 5 | GNR07D271K |
| 175 | 225 | 270 | 247 | 303 | 455 | 25 | 2500 | 1250 | 0.4 | 40 | 350 | 4.1 | 2.1 | 7.5 | GNR10D271K |
| 175 | 225 | 270 | 247 | 303 | 455 | 50 | 4500 | 2500 | 0.6 | 70 | 640 | 4.2 | 2.1 | 7.5 | GNR14D271K |
| 175 | 225 | 270 | 247 | 303 | 455 | 100 | 6500 | 4000 | 1 | 127 | 1300 | 4.6 | 2.1 | 7.5 | GNR20D271KA |
| 175 | 225 | 270 | 247 | 303 | 455 | 100 | 6500 | 4000 | 1 | 127 | 1300 | 4.6 | 2.3 | 10 | GNR20D271K |
| 190 | 250 | 300 | 270 | 330 | 525 | 5 | 400 | 200 | 0.1 | 9 | 85 | 3.9 | 2.1 | 5 | GNR05D301K |
| 190 | 250 | 300 | 270 | 330 | 505 | 10 | 1200 | 600 | 0.25 | 21 | 140 | 3.9 | 2.1 | 5 | GNR07D301K |
| 190 | 250 | 300 | 270 | 330 | 505 | 25 | 2500 | 1250 | 0.4 | 43 | 320 | 4.3 | 2.3 | 7.5 | GNR10D301K |
| 190 | 250 | 300 | 270 | 330 | 505 | 50 | 4500 | 2500 | 0.6 | 80 | 610 | 4.4 | 2.3 | 7.5 | GNR14D301K |
| 190 | 250 | 300 | 270 | 330 | 505 | 100 | 6500 | 4000 | 1 | 135 | 1200 | 4.8 | 2.3 | 7.5 | GNR20D301KA |
| 190 | 250 | 300 | 270 | 330 | 505 | 100 | 6500 | 4000 | 1 | 135 | 1200 | 4.8 | 2.5 | 10 | GNR20D301K |
| 210 | 275 | 330 | 297 | 363 | 575 | 5 | 400 | 200 | 0.1 | 9.5 | 80 | 4 | 2.2 | 5 | GNR05D331K |
| 210 | 275 | 330 | 297 | 363 | 550 | 10 | 1200 | 600 | 0.25 | 23 | 130 | 4 | 2.2 | 5 | GNR07D331K |
| 210 | 275 | 330 | 297 | 363 | 550 | 25 | 2500 | 1250 | 0.4 | 45 | 300 | 4.4 | 2.4 | 7.5 | GNR10D331K |
| 210 | 275 | 330 | 297 | 363 | 550 | 50 | 4500 | 2500 | 0.6 | 87 | 580 | 4.5 | 2.4 | 7.5 | GNR14D331K |
| 210 | 275 | 330 | 297 | 363 | 550 | 100 | 6500 | 4000 | 1 | 150 | 1100 | 4.9 | 2.4 | 7.5 | GNR20D331KA |
| 210 | 275 | 330 | 297 | 363 | 550 | 100 | 6500 | 4000 | 1 | 150 | 1100 | 4.9 | 2.6 | 10 | GNR20D331K |
| 230 | 300 | 360 | 324 | 396 | 620 | 5 | 400 | 200 | 0.1 | 10 | 80 | 4.2 | 2.4 | 5 | GNR05D361K |
| 230 | 300 | 360 | 324 | 396 | 595 | 10 | 1200 | 600 | 0.25 | 25 | 130 | 4.2 | 2.4 | 5 | GNR07D361K |
| 230 | 300 | 360 | 324 | 396 | 595 | 25 | 2500 | 1250 | 0.4 | 47 | 300 | 4.6 | 2.6 | 7.5 | GNR10D361K |
| 230 | 300 | 360 | 324 | 396 | 595 | 50 | 4500 | 2500 | 0.6 | 93 | 540 | 4.7 | 2.6 | 7.5 | GNR14D361K |
| 230 | 300 | 360 | 324 | 396 | 595 | 100 | 6500 | 4000 | 1 | 163 | 1100 | 5.1 | 2.6 | 7.5 | GNR20D361KA |
| 230 | 300 | 360 | 324 | 396 | 595 | 100 | 6500 | 4000 | 1 | 163 | 1100 | 5.1 | 2.8 | 10 | GNR20D361K |

GNR main listing continued overleaf > > >

CERAMATE type GNR

MAIN LISTING (cont.)

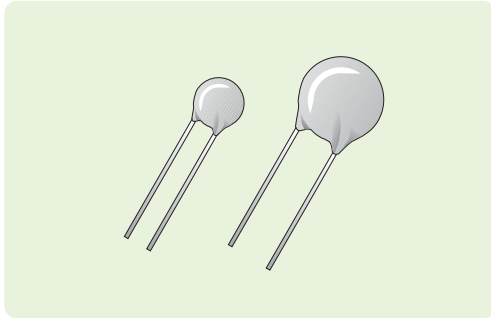


| Max. Operating Voltage (V) | | Varistor Voltage (V) Tolerance | | | Max. Clamping Voltage (V) at (A) | | Withstanding Surge Current | | Rated Power (W) | Energy Absorption (10/1000µs) (J) | Typ. Cap. (1kHz) (pF) | Dimensions (mm) | | | Manf. Part No. & anglia Order Code |
|----------------------------|-----|--------------------------------|------|------|----------------------------------|-----|----------------------------|--------------|-----------------|-----------------------------------|-----------------------|-----------------|-----|-------|------------------------------------|
| rms | dc | Nom. | Min. | Max. | (V) | (A) | 1 Surge (A) | 2 Surges (A) | | | | T max. | a | Pitch | |
| 250 | 320 | 390 | 351 | 429 | 675 | 5 | 400 | 200 | 0.1 | 12 | 80 | 4.3 | 2.5 | 5 | GNR05D391K |
| 250 | 320 | 390 | 351 | 429 | 650 | 10 | 1200 | 600 | 0.25 | 25 | 130 | 4.3 | 2.5 | 5 | GNR07D391K |
| 250 | 320 | 390 | 351 | 429 | 650 | 25 | 2500 | 1250 | 0.4 | 60 | 300 | 4.7 | 2.7 | 7.5 | GNR10D391K |
| 250 | 320 | 390 | 351 | 429 | 650 | 50 | 4500 | 2500 | 0.6 | 100 | 500 | 4.8 | 2.7 | 7.5 | GNR14D391K |
| 250 | 320 | 390 | 351 | 429 | 650 | 100 | 6500 | 4000 | 1 | 180 | 1100 | 5.2 | 2.7 | 7.5 | GNR20D391KA |
| 250 | 320 | 390 | 351 | 429 | 650 | 100 | 6500 | 4000 | 1 | 180 | 1100 | 5.2 | 2.9 | 10 | GNR20D391K |
| 275 | 350 | 430 | 387 | 473 | 745 | 5 | 400 | 200 | 0.1 | 13 | 70 | 4.5 | 2.7 | 5 | GNR05D431K |
| 275 | 350 | 430 | 387 | 473 | 710 | 10 | 1200 | 600 | 0.25 | 28 | 120 | 4.5 | 2.7 | 5 | GNR07D431K |
| 275 | 350 | 430 | 387 | 473 | 710 | 25 | 2500 | 1250 | 0.4 | 65 | 270 | 4.9 | 2.9 | 7.5 | GNR10D431K |
| 275 | 350 | 430 | 387 | 473 | 710 | 50 | 4500 | 2500 | 0.6 | 115 | 450 | 5 | 2.9 | 7.5 | GNR14D431K |
| 275 | 350 | 430 | 387 | 473 | 710 | 100 | 6500 | 4000 | 1 | 190 | 1000 | 5.4 | 2.9 | 7.5 | GNR20D431KA |
| 275 | 350 | 430 | 387 | 473 | 710 | 100 | 6500 | 4000 | 1 | 190 | 1000 | 5.4 | 3.1 | 10 | GNR20D431K |
| 300 | 385 | 470 | 423 | 517 | 810 | 5 | 400 | 200 | 0.1 | 15 | 60 | 4.7 | 2.9 | 5 | GNR05D471K |
| 300 | 385 | 470 | 423 | 517 | 775 | 10 | 1200 | 600 | 0.25 | 30 | 100 | 4.7 | 2.9 | 5 | GNR07D471K |
| 300 | 385 | 470 | 423 | 517 | 775 | 25 | 2500 | 1250 | 0.4 | 70 | 230 | 5.1 | 3.1 | 7.5 | GNR10D471K |
| 300 | 385 | 470 | 423 | 517 | 775 | 50 | 4500 | 2500 | 0.6 | 125 | 400 | 5.2 | 3.1 | 7.5 | GNR14D471K |
| 300 | 385 | 470 | 423 | 517 | 775 | 100 | 6500 | 4000 | 1 | 220 | 900 | 5.6 | 3.1 | 7.5 | GNR20D471KA |
| 300 | 385 | 470 | 423 | 517 | 775 | 100 | 6500 | 4000 | 1 | 220 | 900 | 5.6 | 3.3 | 10 | GNR20D471K |
| 320 | 418 | 510 | 459 | 561 | 842 | 25 | 2500 | 1250 | 0.4 | 67 | 210 | 5.2 | 3.2 | 7.5 | GNR10D511K |
| 320 | 418 | 510 | 459 | 561 | 842 | 50 | 4500 | 2500 | 0.6 | 122 | 350 | 5.3 | 3.2 | 7.5 | GNR14D511K |
| 320 | 418 | 510 | 459 | 561 | 842 | 100 | 6500 | 4000 | 1 | 210 | 800 | 5.7 | 3.2 | 7.5 | GNR20D511KA |
| 320 | 418 | 510 | 459 | 561 | 842 | 100 | 6500 | 4000 | 1 | 210 | 800 | 5.7 | 3.4 | 10 | GNR20D511K |
| 350 | 460 | 560 | 504 | 616 | 920 | 25 | 2500 | 1250 | 0.4 | 68 | 200 | 5.3 | 3.3 | 7.5 | GNR10D561K |
| 350 | 460 | 560 | 504 | 616 | 920 | 50 | 4500 | 2500 | 0.6 | 123 | 340 | 5.4 | 3.3 | 7.5 | GNR14D561K |
| 350 | 460 | 560 | 504 | 616 | 920 | 100 | 6500 | 4000 | 1 | 214 | 750 | 5.8 | 3.3 | 7.5 | GNR20D561KA |
| 350 | 460 | 560 | 504 | 616 | 920 | 100 | 6500 | 4000 | 1 | 214 | 750 | 5.8 | 3.5 | 10 | GNR20D561K |
| 385 | 505 | 620 | 558 | 682 | 1025 | 25 | 2500 | 1250 | 0.4 | 70 | 190 | 5.6 | 3.6 | 7.5 | GNR10D621K |
| 385 | 505 | 620 | 558 | 682 | 1025 | 50 | 4500 | 2500 | 0.6 | 125 | 330 | 5.7 | 3.6 | 7.5 | GNR14D621K |
| 385 | 505 | 620 | 558 | 682 | 1025 | 100 | 6500 | 4000 | 1 | 220 | 700 | 6.1 | 3.6 | 7.5 | GNR20D621KA |
| 385 | 505 | 620 | 558 | 682 | 1025 | 100 | 6500 | 4000 | 1 | 220 | 700 | 6.1 | 3.8 | 10 | GNR20D621K |
| 420 | 560 | 680 | 612 | 748 | 1120 | 25 | 2500 | 1250 | 0.4 | 72 | 170 | 5.9 | 3.9 | 7.5 | GNR10D681K |
| 420 | 560 | 680 | 612 | 748 | 1120 | 50 | 4500 | 2500 | 0.6 | 130 | 320 | 6 | 3.9 | 7.5 | GNR14D681K |
| 420 | 560 | 680 | 612 | 748 | 1120 | 100 | 6500 | 4000 | 1 | 230 | 650 | 6.4 | 3.9 | 7.5 | GNR20D681KA |
| 420 | 560 | 680 | 612 | 748 | 1120 | 100 | 6500 | 4000 | 1 | 230 | 650 | 6.4 | 4.1 | 10 | GNR20D681K |
| 460 | 615 | 750 | 675 | 825 | 1240 | 25 | 2500 | 1250 | 0.4 | 75 | 160 | 6.2 | 4.2 | 7.5 | GNR10D751K |
| 460 | 615 | 750 | 675 | 825 | 1240 | 50 | 4500 | 2500 | 0.6 | 143 | 310 | 6.3 | 4.2 | 7.5 | GNR14D751K |
| 460 | 615 | 750 | 675 | 825 | 1240 | 100 | 6500 | 4000 | 1 | 255 | 600 | 6.7 | 4.2 | 7.5 | GNR20D751KA |
| 460 | 615 | 750 | 675 | 825 | 1240 | 100 | 6500 | 4000 | 1 | 255 | 600 | 6.7 | 4.4 | 10 | GNR20D751K |
| 485 | 640 | 780 | 702 | 858 | 1290 | 25 | 2500 | 1250 | 0.4 | 80 | 150 | 6.3 | 4.3 | 7.5 | GNR10D781K |
| 485 | 640 | 780 | 702 | 858 | 1290 | 50 | 4500 | 2500 | 0.6 | 148 | 290 | 6.4 | 4.3 | 7.5 | GNR14D781K |
| 485 | 640 | 780 | 702 | 858 | 1290 | 100 | 6500 | 4000 | 1 | 265 | 560 | 6.8 | 4.3 | 7.5 | GNR20D781KA |
| 485 | 640 | 780 | 702 | 858 | 1290 | 100 | 6500 | 4000 | 1 | 265 | 560 | 6.8 | 4.5 | 10 | GNR20D781K |
| 510 | 670 | 820 | 738 | 902 | 1355 | 25 | 2500 | 1250 | 0.4 | 85 | 140 | 6.5 | 4.5 | 7.5 | GNR10D821K |
| 510 | 670 | 820 | 738 | 902 | 1355 | 50 | 4500 | 2500 | 0.6 | 157 | 280 | 6.6 | 4.5 | 7.5 | GNR14D821K |
| 510 | 670 | 820 | 738 | 902 | 1355 | 100 | 6500 | 4000 | 1 | 282 | 510 | 7 | 4.5 | 7.5 | GNR20D821KA |
| 510 | 670 | 820 | 738 | 902 | 1355 | 100 | 6500 | 4000 | 1 | 282 | 510 | 7 | 4.7 | 10 | GNR20D821K |
| 550 | 745 | 910 | 819 | 1001 | 1500 | 25 | 2500 | 1250 | 0.4 | 93 | 120 | 6.6 | 4.6 | 7.5 | GNR10D911K |
| 550 | 745 | 910 | 819 | 1001 | 1500 | 50 | 4500 | 2500 | 0.6 | 175 | 280 | 6.7 | 4.6 | 7.5 | GNR14D911K |
| 550 | 745 | 910 | 819 | 1001 | 1500 | 100 | 6500 | 4000 | 1 | 310 | 420 | 7.1 | 4.6 | 7.5 | GNR20D911KA |
| 550 | 745 | 910 | 819 | 1001 | 1500 | 100 | 6500 | 4000 | 1 | 310 | 420 | 7.1 | 4.8 | 10 | GNR20D911K |
| 680 | 895 | 1100 | 990 | 1210 | 1815 | 25 | 2500 | 1250 | 0.4 | 115 | 100 | 7.2 | 5.2 | 7.5 | GNR10D112K |
| 680 | 895 | 1100 | 990 | 1210 | 1815 | 50 | 4500 | 2500 | 0.6 | 213 | 280 | 7.3 | 5.2 | 7.5 | GNR14D112K |
| 680 | 895 | 1100 | 990 | 1210 | 1815 | 100 | 6500 | 4000 | 1 | 383 | 330 | 7.7 | 5.2 | 7.5 | GNR20D112KA |
| 680 | 895 | 1100 | 990 | 1210 | 1815 | 100 | 6500 | 4000 | 1 | 383 | 330 | 7.7 | 5.4 | 10 | GNR20D112K |

EPCOS type SIOV-S (B722*) series

A comprehensive series of metal oxide varistors providing an extensive selection of voltage and energy ratings. Connected directly across the supply rails, the devices are designed to protect equipment against transient voltage spikes by clamping any surges to safe levels. Epoxy coated disc construction with radial leads, flame retardant to UL94V-0.

N.B. A varistor remains high impedance (non-operative) during normal standby use. When a voltage spike is encountered the impedance rapidly drops to a very low level, clamping the transient voltage to an acceptable level. The varistor absorbs the unwanted energy thereby protecting voltage sensitive components against damage.



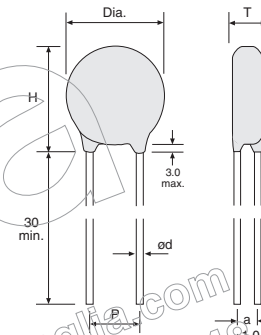
- ◆ Broad range
- ◆ Choice of voltage & energy ratings
- ◆ Fast response
- ◆ Protect voltage sensitive components against damage
- ◆ Convenient and simple solution to transient suppression
- ◆ Flame retardant coating to UL94V-0
- ◆ Body colour **Blue**

Specification

In accordance with CECC 42000

| | |
|---------------------------------------|-----------------|
| Storage temperature range | -40°C to +125°C |
| Operating temperature range | -40°C to +85°C |
| Response time | <25ns |
| Voltage coefficient/temperature | -0.05%/°C |
| Insulation resistance | ≥10MΩ |
| Insulation voltage | 2500Vrms |

Dimensions (mm)



| APPROVAL | APPLICABLE TYPES | FILE NO. | STANDARD |
|----------|--|-----------|---|
| | All varistor voltages | E97877 | UL1449 |
| | 205V to 470 nom. (Up to 1100V nom. 20mm disc) | E63802 | UL1414 |
| | 180V nom. and above | LR-175282 | C22.21 01 |
| | All varistor voltages | - | CECC42200 |
| | All varistor voltages | - | CECC42000 CECC42200 CECC42201-004 |

| | Dia. max. | H max. | P | ød |
|----------------------------|-----------|--------|-----|-----|
| SIOV-S05K (B72205S) | 7.0 | 9.0 | 5 | 0.6 |
| SIOV-S07K (B72207S) | 9.0 | 11.5 | 5 | 0.6 |
| SIOV-S10K (B72210S) | 12.0 | 15 | 7.5 | 0.8 |
| SIOV-S14K (B72214S) | 15.5 | 19 | 7.5 | 0.8 |
| SIOV-S20K (B72220S) | 21.5 | 26 | 10 | 1.0 |

Dims 'a' and 'T' : see main listing on pages 328 & 329.

Also available to special order :

- Other lead styles
- Taped product

SIOV-S (B722*) main listing shown overleaf > > >

EPCOS type SIOV-S (B722*) series

MAIN LISTING



| Max. Operating Voltage (V) | | Varistor Voltage (V) Tolerance | | | Max. Clamping Voltage (V) at (A) | | Withstanding Surge Current (8/20µs) (A) | Rated Power (W) | Energy Absorption (2ms) (J) | Typ. Cap. (1kHz) (pF) | Dimensions (mm) | | | Manf. Part No. & Anglia Order Code |
|----------------------------|-----|--------------------------------|-------|-------|----------------------------------|-----|---|-----------------|-----------------------------|-----------------------|-----------------|-----|-------|------------------------------------|
| rms | dc | Nom. | Min. | Max. | | | | | | | T max. | a | Pitch | |
| 11 | 14 | 18 | 16.2 | 19.8 | 36 | 1 | 100 | 0.01 | 0.3 | 1750 | 3.3 | 1.2 | 5 | B72205S110K101 |
| 11 | 14 | 18 | 16.2 | 19.8 | 36 | 2.5 | 250 | 0.02 | 0.8 | 2750 | 3.4 | 1.2 | 5 | B72207S110K101 |
| 11 | 14 | 18 | 16.2 | 19.8 | 36 | 5 | 500 | 0.05 | 1.7 | 6250 | 4 | 1.4 | 7.5 | B72210S110K101 |
| 11 | 14 | 18 | 16.2 | 19.8 | 36 | 10 | 1000 | 0.1 | 3.2 | 12100 | 4 | 1.4 | 7.5 | B72214S110K101 |
| 11 | 14 | 18 | 16.2 | 19.8 | 36 | 20 | 2000 | 0.2 | 10 | 23000 | 4.5 | 1.5 | 10 | B72220S110K101 |
| 14 | 18 | 22 | 19.8 | 24.2 | 43 | 1 | 100 | 0.01 | 0.4 | 1450 | 3.4 | 1.3 | 5 | B72205S140K101 |
| 14 | 18 | 22 | 19.8 | 24.2 | 43 | 2.5 | 250 | 0.02 | 0.9 | 2300 | 3.5 | 1.3 | 5 | B72207S140K101 |
| 14 | 18 | 22 | 19.8 | 24.2 | 43 | 5 | 500 | 0.05 | 2 | 5200 | 4.2 | 1.5 | 7.5 | B72210S140K101 |
| 14 | 18 | 22 | 19.8 | 24.2 | 43 | 10 | 1000 | 0.1 | 4 | 9950 | 4.2 | 1.5 | 7.5 | B72214S140K101 |
| 14 | 18 | 22 | 19.8 | 24.2 | 43 | 20 | 2000 | 0.2 | 12 | 19000 | 4.6 | 1.6 | 10 | B72220S140K101 |
| 17 | 22 | 27 | 24.3 | 29.7 | 53 | 1 | 100 | 0.01 | 0.5 | 1200 | 3.5 | 1.4 | 5 | B72205S170K101 |
| 17 | 22 | 27 | 24.3 | 29.7 | 53 | 2.5 | 250 | 0.02 | 1.1 | 1900 | 3.6 | 1.4 | 5 | B72207S170K101 |
| 17 | 22 | 27 | 24.3 | 29.7 | 53 | 5 | 500 | 0.05 | 2.5 | 4350 | 4.4 | 1.6 | 7.5 | B72210S170K101 |
| 17 | 22 | 27 | 24.3 | 29.7 | 53 | 10 | 1000 | 0.1 | 5 | 8200 | 4.4 | 1.7 | 7.5 | B72214S170K101 |
| 17 | 22 | 27 | 24.3 | 29.7 | 53 | 20 | 2000 | 0.2 | 14 | 15600 | 4.8 | 1.8 | 10 | B72220S170K101 |
| 20 | 26 | 33 | 29.7 | 36.3 | 65 | 1 | 100 | 0.01 | 0.6 | 980 | 3.5 | 1.2 | 5 | B72205S200K101 |
| 20 | 26 | 33 | 29.7 | 36.3 | 65 | 2.5 | 250 | 0.02 | 1.3 | 1600 | 3.6 | 1.2 | 5 | B72207S200K101 |
| 20 | 26 | 33 | 29.7 | 36.3 | 65 | 5 | 500 | 0.05 | 3.1 | 3650 | 4.5 | 1.8 | 7.5 | B72210S200K101 |
| 20 | 26 | 33 | 29.7 | 36.3 | 65 | 10 | 1000 | 0.1 | 6 | 6800 | 4.6 | 1.9 | 7.5 | B72214S200K101 |
| 20 | 26 | 33 | 29.7 | 36.3 | 65 | 20 | 2000 | 0.2 | 18 | 13000 | 5.1 | 2.1 | 10 | B72220S200K101 |
| 25 | 31 | 39 | 35.1 | 42.9 | 77 | 1 | 100 | 0.01 | 0.7 | 850 | 3.6 | 1.3 | 5 | B72205S250K101 |
| 25 | 31 | 39 | 35.1 | 42.9 | 77 | 2.5 | 250 | 0.02 | 1.6 | 1400 | 3.7 | 1.3 | 5 | B72207S250K101 |
| 25 | 31 | 39 | 35.1 | 42.9 | 77 | 5 | 500 | 0.05 | 3.7 | 3200 | 4.2 | 1.6 | 7.5 | B72210S250K101 |
| 25 | 31 | 39 | 35.1 | 42.9 | 77 | 10 | 1000 | 0.1 | 7 | 5850 | 4.2 | 1.7 | 7.5 | B72214S250K101 |
| 25 | 31 | 39 | 35.1 | 42.9 | 77 | 20 | 2000 | 0.2 | 22 | 11100 | 4.7 | 1.8 | 10 | B72220S250K101 |
| 30 | 38 | 47 | 42.3 | 51.7 | 93 | 1 | 100 | 0.01 | 0.9 | 720 | 3.6 | 1.5 | 5 | B72205S300K101 |
| 30 | 38 | 47 | 42.3 | 51.7 | 93 | 2.5 | 250 | 0.02 | 2.0 | 1200 | 3.7 | 1.5 | 5 | B72207S300K101 |
| 30 | 38 | 47 | 42.3 | 51.7 | 93 | 5 | 500 | 0.05 | 4.4 | 2750 | 4.4 | 1.7 | 7.5 | B72210S300K101 |
| 30 | 38 | 47 | 42.3 | 51.7 | 93 | 10 | 1000 | 0.1 | 9 | 4950 | 4.4 | 1.8 | 7.5 | B72214S300K101 |
| 30 | 38 | 47 | 42.3 | 51.7 | 93 | 20 | 2000 | 0.2 | 26 | 9350 | 4.9 | 2 | 10 | B72220S300K101 |
| 35 | 45 | 56 | 50.4 | 61.6 | 110 | 1 | 100 | 0.01 | 1.1 | 620 | 3.7 | 1.6 | 5 | B72205S350K101 |
| 35 | 45 | 56 | 50.4 | 61.6 | 110 | 2.5 | 250 | 0.02 | 2.5 | 1050 | 3.9 | 1.6 | 5 | B72207S350K101 |
| 35 | 45 | 56 | 50.4 | 61.6 | 110 | 5 | 500 | 0.05 | 5.4 | 2400 | 4.4 | 1.8 | 7.5 | B72210S350K101 |
| 35 | 45 | 56 | 50.4 | 61.6 | 110 | 10 | 1000 | 0.1 | 10 | 4200 | 4.5 | 2 | 7.5 | B72214S350K101 |
| 35 | 45 | 56 | 50.4 | 61.6 | 110 | 20 | 2000 | 0.2 | 33 | 8000 | 5.1 | 2.2 | 10 | B72220S350K101 |
| 40 | 56 | 68 | 61.2 | 74.8 | 135 | 1 | 100 | 0.01 | 1.3 | 520 | 3.9 | 1.8 | 5 | B72205S400K101 |
| 40 | 56 | 68 | 61.2 | 74.8 | 135 | 2.5 | 250 | 0.02 | 3.0 | 900 | 4.1 | 1.8 | 5 | B72207S400K101 |
| 40 | 56 | 68 | 61.2 | 74.8 | 135 | 5 | 500 | 0.05 | 6.4 | 2100 | 4.8 | 2.1 | 7.5 | B72210S400K101 |
| 40 | 56 | 68 | 61.2 | 74.8 | 135 | 10 | 1000 | 0.1 | 13 | 3550 | 4.9 | 2.2 | 7.5 | B72214S400K101 |
| 40 | 56 | 68 | 61.2 | 74.8 | 135 | 20 | 2000 | 0.2 | 37 | 6750 | 5.4 | 2.4 | 10 | B72220S400K101 |
| 50 | 65 | 82 | 73.8 | 90.2 | 135 | 5 | 400 | 0.1 | 1.8 | 300 | 3.3 | 1.2 | 5 | B72205S500K101 |
| 50 | 65 | 82 | 73.8 | 90.2 | 135 | 10 | 1200 | 0.25 | 4.2 | 530 | 3.3 | 1.2 | 5 | B72207S500K101 |
| 50 | 65 | 82 | 73.8 | 90.2 | 135 | 25 | 2500 | 0.4 | 8.4 | 950 | 3.9 | 1.4 | 7.5 | B72210S500K101 |
| 50 | 65 | 82 | 73.8 | 90.2 | 135 | 50 | 4500 | 0.6 | 15 | 1800 | 3.9 | 1.4 | 7.5 | B72214S500K101 |
| 50 | 65 | 82 | 73.8 | 90.2 | 135 | 100 | 6500 | 1 | 27 | 3800 | 4.3 | 1.5 | 10 | B72220S500K101 |
| 60 | 85 | 100 | 90 | 110 | 165 | 5 | 400 | 0.1 | 2.2 | 250 | 3.3 | 1.2 | 5 | B72205S600K101 |
| 60 | 85 | 100 | 90 | 110 | 165 | 10 | 1200 | 0.25 | 4.8 | 480 | 3.3 | 1.2 | 5 | B72207S600K101 |
| 60 | 85 | 100 | 90 | 110 | 165 | 25 | 2500 | 0.4 | 10 | 870 | 4 | 1.4 | 7.5 | B72210S600K101 |
| 60 | 85 | 100 | 90 | 110 | 165 | 50 | 4500 | 0.6 | 17 | 1650 | 4 | 1.5 | 7.5 | B72214S600K101 |
| 60 | 85 | 100 | 90 | 110 | 165 | 100 | 6500 | 1 | 33 | 3600 | 4.4 | 1.6 | 10 | B72220S600K101 |
| 75 | 100 | 120 | 108 | 132 | 200 | 5 | 400 | 0.1 | 2.5 | 210 | 3.4 | 1.3 | 5 | B72205S750K101 |
| 75 | 100 | 120 | 108 | 132 | 200 | 10 | 1200 | 0.25 | 5.9 | 430 | 3.6 | 1.3 | 5 | B72207S750K101 |
| 75 | 100 | 120 | 108 | 132 | 200 | 25 | 2500 | 0.4 | 12 | 720 | 4.2 | 1.5 | 7.5 | B72210S750K101 |
| 75 | 100 | 120 | 108 | 132 | 200 | 50 | 4500 | 0.6 | 20 | 1370 | 4.2 | 1.5 | 7.5 | B72214S750K101 |
| 75 | 100 | 120 | 108 | 132 | 200 | 100 | 6500 | 1 | 40 | 2900 | 4.6 | 1.6 | 10 | B72220S750K101 |
| 95 | 125 | 150 | 135 | 165 | 250 | 5 | 400 | 0.1 | 3.4 | 135 | 3.4 | 1.3 | 5 | B72205S950K101 |
| 95 | 125 | 150 | 135 | 165 | 250 | 10 | 1200 | 0.25 | 7.6 | 260 | 3.4 | 1.3 | 5 | B72207S950K101 |
| 95 | 125 | 150 | 135 | 165 | 250 | 25 | 2500 | 0.4 | 15 | 530 | 4 | 1.5 | 7.5 | B72210S950K101 |
| 95 | 125 | 150 | 135 | 165 | 250 | 50 | 4500 | 0.6 | 25 | 870 | 4 | 1.5 | 7.5 | B72214S950K101 |
| 95 | 125 | 150 | 135 | 165 | 250 | 100 | 6500 | 1 | 50 | 1830 | 4.5 | 1.6 | 10 | B72220S950K101 |
| 115 | 150 | 180 | 162 | 198 | 300 | 5 | 400 | 0.1 | 3.6 | 110 | 3.6 | 1.5 | 5 | B72205S111K101 |
| 115 | 150 | 180 | 162 | 198 | 300 | 10 | 1200 | 0.25 | 8.4 | 220 | 3.6 | 1.5 | 5 | B72207S111K101 |
| 115 | 150 | 180 | 162 | 198 | 300 | 25 | 2500 | 0.4 | 18 | 445 | 4.2 | 1.6 | 7.5 | B72210S111K101 |
| 115 | 150 | 180 | 162 | 198 | 300 | 50 | 4500 | 0.6 | 30 | 730 | 4.2 | 1.7 | 7.5 | B72214S111K101 |
| 115 | 150 | 180 | 162 | 198 | 300 | 100 | 6500 | 1 | 60 | 1520 | 4.6 | 1.8 | 10 | B72220S111K101 |
| 130 | 170 | 205 | 184.5 | 225.5 | 340 | 5 | 400 | 0.1 | 4.2 | 100 | 3.6 | 1.6 | 5 | B72205S131K101 |
| 130 | 170 | 205 | 184.5 | 225.5 | 340 | 10 | 1200 | 0.25 | 9.5 | 200 | 3.6 | 1.6 | 5 | B72207S131K101 |
| 130 | 170 | 205 | 184.5 | 225.5 | 340 | 25 | 2500 | 0.4 | 19 | 400 | 4.2 | 1.8 | 7.5 | B72210S131K101 |
| 130 | 170 | 205 | 184.5 | 225.5 | 340 | 50 | 4500 | 0.6 | 34 | 650 | 4.2 | 1.9 | 7.5 | B72214S131K101 |
| 130 | 170 | 205 | 184.5 | 225.5 | 340 | 100 | 8000 | 1 | 74 | 1340 | 4.7 | 2 | 10 | B72220S131K101 |

continued on next page

EPCOS type SIOV-S (B722*) series
MAIN LISTING (cont.)


| Max. Operating Voltage (V) | | Varistor Voltage (V) Tolerance | | | Max. Clamping Voltage (V) at (A) | | Withstanding Surge Current (8/20µs) (A) | Rated Power (W) | Energy Absorption (2ms) (J) | Typ. Cap. (1kHz) (pF) | Dimensions (mm) | | | Manf. Part No. & Anglia Order Code |
|----------------------------|------|--------------------------------|-------|-------|----------------------------------|-----|---|-----------------|-----------------------------|-----------------------|-----------------|-----|-----|------------------------------------|
| rms | dc | Nom. | Min. | Max. | T max. | a | | | | | Pitch | | | |
| 140 | 180 | 220 | 198 | 242 | 360 | 5 | 400 | 0.1 | 4.5 | 95 | 3.7 | 1.7 | 5 | B72205S141K101 |
| 140 | 180 | 220 | 198 | 242 | 360 | 10 | 1200 | 0.25 | 10 | 180 | 3.7 | 1.7 | 5 | B72207S141K101 |
| 140 | 180 | 220 | 198 | 242 | 360 | 25 | 2500 | 0.4 | 22 | 370 | 4.3 | 1.9 | 7.5 | B72210S141K101 |
| 140 | 180 | 220 | 198 | 242 | 360 | 50 | 4500 | 0.6 | 36 | 610 | 4.3 | 2 | 7.5 | B72214S141K101 |
| 140 | 180 | 220 | 198 | 242 | 360 | 100 | 8000 | 1 | 78 | 1240 | 4.8 | 2.1 | 10 | B72220S141K101 |
| 150 | 200 | 240 | 216 | 264 | 395 | 5 | 400 | 0.1 | 4.9 | 90 | 3.8 | 1.8 | 5 | B72205S151K101 |
| 150 | 200 | 240 | 216 | 264 | 395 | 10 | 1200 | 0.25 | 11 | 170 | 3.8 | 1.8 | 5 | B72207S151K101 |
| 150 | 200 | 240 | 216 | 264 | 395 | 25 | 2500 | 0.4 | 24 | 350 | 4.4 | 2 | 7.5 | B72210S151K101 |
| 150 | 200 | 240 | 216 | 264 | 395 | 50 | 4500 | 0.6 | 40 | 570 | 4.4 | 2.1 | 7.5 | B72214S151K101 |
| 150 | 200 | 240 | 216 | 264 | 395 | 100 | 8000 | 1 | 85 | 1160 | 4.9 | 2.2 | 10 | B72220S151K101 |
| 175 | 225 | 270 | 243 | 297 | 455 | 5 | 400 | 0.1 | 5.6 | 75 | 3.9 | 2 | 5 | B72205S171K101 |
| 175 | 225 | 270 | 243 | 297 | 455 | 10 | 1200 | 0.25 | 13 | 150 | 4 | 2 | 5 | B72207S171K101 |
| 175 | 225 | 270 | 243 | 297 | 455 | 25 | 2500 | 0.4 | 28 | 300 | 4.6 | 2.2 | 7.5 | B72210S171K101 |
| 175 | 225 | 270 | 243 | 297 | 455 | 50 | 4500 | 0.6 | 46 | 490 | 4.6 | 2.2 | 7.5 | B72214S171K101 |
| 175 | 225 | 270 | 243 | 297 | 455 | 100 | 8000 | 1 | 98 | 1000 | 5 | 2.3 | 10 | B72220S171K101 |
| 230 | 300 | 360 | 324 | 396 | 595 | 5 | 400 | 0.1 | 7.2 | 60 | 4 | 1.8 | 5 | B72205S231K101 |
| 230 | 300 | 360 | 324 | 396 | 595 | 10 | 1200 | 0.25 | 17 | 115 | 4 | 1.8 | 5 | B72207S231K101 |
| 230 | 300 | 360 | 324 | 396 | 595 | 25 | 2500 | 0.4 | 36 | 230 | 4.7 | 2 | 7.5 | B72210S231K101 |
| 230 | 300 | 360 | 324 | 396 | 595 | 50 | 4500 | 0.6 | 60 | 380 | 4.7 | 2 | 7.5 | B72214S231K101 |
| 230 | 300 | 360 | 324 | 396 | 595 | 100 | 8000 | 1 | 130 | 760 | 5.1 | 2.1 | 10 | B72220S231K101 |
| 250 | 320 | 390 | 351 | 429 | 650 | 5 | 400 | 0.1 | 8.2 | 55 | 4.2 | 1.8 | 5 | B72205S251K101 |
| 250 | 320 | 390 | 351 | 429 | 650 | 10 | 1200 | 0.25 | 19 | 105 | 4.2 | 1.8 | 5 | B72207S251K101 |
| 250 | 320 | 390 | 351 | 429 | 650 | 25 | 2500 | 0.4 | 38 | 215 | 4.8 | 2 | 7.5 | B72210S251K101 |
| 250 | 320 | 390 | 351 | 429 | 650 | 50 | 4500 | 0.6 | 65 | 350 | 4.8 | 2 | 7.5 | B72214S251K101 |
| 250 | 320 | 390 | 351 | 429 | 650 | 100 | 8000 | 1 | 140 | 700 | 5.3 | 2.2 | 10 | B72220S251K101 |
| 275 | 350 | 430 | 387 | 473 | 710 | 5 | 400 | 0.1 | 8.6 | 50 | 4.3 | 2 | 5 | B72205S271K101 |
| 275 | 350 | 430 | 387 | 473 | 710 | 10 | 1200 | 0.25 | 21 | 95 | 4.4 | 2 | 5 | B72207S271K101 |
| 275 | 350 | 430 | 387 | 473 | 710 | 25 | 2500 | 0.4 | 43 | 195 | 5 | 2.2 | 7.5 | B72210S271K101 |
| 275 | 350 | 430 | 387 | 473 | 710 | 50 | 4500 | 0.6 | 71 | 320 | 5 | 2.2 | 7.5 | B72214S271K101 |
| 275 | 350 | 430 | 387 | 473 | 710 | 100 | 8000 | 1 | 151 | 630 | 5.4 | 2.3 | 10 | B72220S271K101 |
| 300 | 385 | 470 | 423 | 517 | 775 | 5 | 400 | 0.1 | 9.6 | 45 | 4.5 | 2.1 | 5 | B72205S301K101 |
| 300 | 385 | 470 | 423 | 517 | 775 | 10 | 1200 | 0.25 | 23 | 90 | 4.5 | 2.1 | 5 | B72207S301K101 |
| 300 | 385 | 470 | 423 | 517 | 775 | 25 | 2500 | 0.4 | 47 | 180 | 5.1 | 2.3 | 7.5 | B72210S301K101 |
| 300 | 385 | 470 | 423 | 517 | 775 | 50 | 4500 | 0.6 | 76 | 300 | 5.2 | 2.3 | 7.5 | B72214S301K101 |
| 300 | 385 | 470 | 423 | 517 | 775 | 100 | 8000 | 1 | 173 | 580 | 5.6 | 2.4 | 10 | B72220S301K101 |
| 320 | 420 | 510 | 459 | 561 | 840 | 25 | 2500 | 0.4 | 50 | 170 | 5.4 | 2.4 | 7.5 | B72210S321K101 |
| 320 | 420 | 510 | 459 | 561 | 840 | 50 | 4500 | 0.6 | 84 | 280 | 5.4 | 2.4 | 7.5 | B72214S321K101 |
| 320 | 420 | 510 | 459 | 561 | 840 | 100 | 8000 | 1 | 184 | 540 | 5.8 | 2.6 | 10 | B72220S321K101 |
| 385 | 505 | 620 | 558 | 682 | 1025 | 5 | 400 | 0.1 | 13 | 40 | 5.1 | 2.5 | 5 | B72205S381K101 |
| 385 | 505 | 620 | 558 | 682 | 1025 | 10 | 1200 | 0.25 | 28 | 75 | 5.2 | 2.5 | 5 | B72207S381K101 |
| 385 | 505 | 620 | 558 | 682 | 1025 | 25 | 2500 | 0.4 | 40 | 150 | 5.8 | 2.7 | 7.5 | B72210S381K101 |
| 385 | 505 | 620 | 558 | 682 | 1025 | 50 | 4500 | 0.6 | 80 | 240 | 5.9 | 2.7 | 7.5 | B72214S381K101 |
| 385 | 505 | 620 | 558 | 682 | 1025 | 100 | 8000 | 1 | 150 | 450 | 6.3 | 2.8 | 10 | B72220S381K101 |
| 420 | 560 | 680 | 612 | 748 | 1120 | 5 | 400 | 0.1 | 14 | 35 | 5.4 | 2.8 | 5 | B72205S421K101 |
| 420 | 560 | 680 | 612 | 748 | 1120 | 10 | 1200 | 0.25 | 32 | 65 | 5.4 | 2.8 | 5 | B72207S421K101 |
| 420 | 560 | 680 | 612 | 748 | 1120 | 25 | 2500 | 0.4 | 45 | 135 | 6.1 | 2.9 | 7.5 | B72210S421K101 |
| 420 | 560 | 680 | 612 | 748 | 1120 | 50 | 4500 | 0.6 | 90 | 220 | 6.1 | 2.9 | 7.5 | B72214S421K101 |
| 420 | 560 | 680 | 612 | 748 | 1120 | 100 | 8000 | 1 | 175 | 420 | 6.5 | 3.1 | 10 | B72220S421K101 |
| 440 | 585 | 715 | 643.5 | 786.5 | 1180 | 5 | 400 | 0.1 | 16 | 32 | 5.5 | 2.8 | 5 | B72205S441K101 |
| 440 | 585 | 715 | 643.5 | 786.5 | 1180 | 10 | 1200 | 0.25 | 34 | 60 | 5.5 | 2.8 | 5 | B72207S441K101 |
| 440 | 585 | 715 | 643.5 | 786.5 | 1180 | 25 | 2500 | 0.4 | 47 | 125 | 6.2 | 3 | 7.5 | B72210S441K101 |
| 440 | 585 | 715 | 643.5 | 786.5 | 1180 | 50 | 4500 | 0.6 | 95 | 210 | 6.3 | 3 | 7.5 | B72214S441K101 |
| 440 | 585 | 715 | 643.5 | 786.5 | 1180 | 100 | 8000 | 1 | 185 | 400 | 6.7 | 3.1 | 10 | B72220S441K101 |
| 460 | 615 | 750 | 675 | 825 | 1240 | 5 | 400 | 0.1 | 18 | 30 | 5.7 | 3 | 5 | B72205S461K101 |
| 460 | 615 | 750 | 675 | 825 | 1240 | 10 | 1200 | 0.25 | 36 | 55 | 5.7 | 3 | 5 | B72207S461K101 |
| 460 | 615 | 750 | 675 | 825 | 1240 | 25 | 2500 | 0.4 | 50 | 120 | 6.3 | 3.1 | 7.5 | B72210S461K101 |
| 460 | 615 | 750 | 675 | 825 | 1240 | 50 | 4500 | 0.6 | 100 | 200 | 6.4 | 3.1 | 7.5 | B72214S461K101 |
| 460 | 615 | 750 | 675 | 825 | 1240 | 100 | 8000 | 1 | 195 | 380 | 6.8 | 3.3 | 10 | B72220S461K101 |
| 510 | 670 | 820 | 738 | 902 | 1355 | 25 | 2500 | 0.4 | 55 | 110 | 6.7 | 3.4 | 7.5 | B72210S511K101 |
| 510 | 670 | 820 | 738 | 902 | 1355 | 50 | 4500 | 0.6 | 110 | 180 | 6.8 | 3.4 | 7.5 | B72214S511K101 |
| 510 | 670 | 820 | 738 | 902 | 1355 | 100 | 6500 | 1 | 190 | 340 | 7.1 | 3.5 | 10 | B72220S511K101 |
| 550 | 745 | 910 | 819 | 1001 | 1500 | 25 | 2500 | 0.4 | 60 | 105 | 7.1 | 3.7 | 7.5 | B72210S551K101 |
| 550 | 745 | 910 | 819 | 1001 | 1500 | 50 | 4500 | 0.6 | 120 | 170 | 7.2 | 3.7 | 7.5 | B72214S551K101 |
| 550 | 745 | 910 | 819 | 1001 | 1500 | 100 | 6500 | 1 | 210 | 320 | 7.5 | 3.9 | 10 | B72220S551K101 |
| 625 | 825 | 1000 | 900 | 1100 | 1650 | 25 | 2500 | 0.4 | 68 | 90 | 7.5 | 4 | 7.5 | B72210S621K101 |
| 625 | 825 | 1000 | 900 | 1100 | 1650 | 50 | 4500 | 0.6 | 130 | 150 | 7.5 | 4 | 7.5 | B72214S621K101 |
| 625 | 825 | 1000 | 900 | 1100 | 1650 | 100 | 6500 | 1 | 230 | 280 | 7.9 | 4.2 | 10 | B72220S621K101 |
| 680 | 895 | 1100 | 990 | 1210 | 1815 | 25 | 2500 | 0.4 | 72 | 85 | 7.9 | 4.4 | 7.5 | B72210S681K101 |
| 680 | 895 | 1100 | 990 | 1210 | 1815 | 50 | 4500 | 0.6 | 140 | 140 | 8 | 4.4 | 7.5 | B72214S681K101 |
| 680 | 895 | 1100 | 990 | 1210 | 1815 | 100 | 6500 | 1 | 250 | 250 | 8.4 | 4.5 | 10 | B72220S681K101 |
| 1100 | 1465 | 1800 | 1620 | 1980 | 2970 | 50 | 4500 | 0.6 | 230 | 100 | 11 | 6.7 | 7.5 | B72214S102K101 |
| 1100 | 1465 | 1800 | 1620 | 1980 | 2970 | 100 | 6500 | 1 | 410 | 170 | 11.4 | 6.9 | 10 | B72220S102K101 |