

FIL235

| Mfrs. List No. | Order Code | 1+ | Price Each | | |
|----------------|------------|----|------------|-----|------|
| | | | 25+ | 50+ | 100+ |
| T20-A230X | 976-258 | | | | |
| T21-A230X | 976-260 | | | | |
| T23-A230X | 564-199 | | | | |
| T23-A350X | 564-205 | | | | |

Gas Discharge Tubes - 20kA



- 20kA metal ceramic gas discharge tubes

Impulse discharge current 20kA
 Insulation resistance >10GΩ
 Capacitance <1.5pF

| DC Sparkover Voltage (V) | Impulse Sparkover Voltage (V) | Mfrs. List No. | Order Code |
|--------------------------|-------------------------------|----------------|------------|
| 90 | <600 | A83-C90 | 564-096 |
| 150 | <600 | A83-A230X | 564-102 |

FIL169

| Mfrs. List No. | Order Code | 1+ | Price Each | | |
|----------------|------------|----|------------|-----|------|
| | | | 25+ | 50+ | 100+ |
| A83-C90 | 564-096 | | | | |
| A83-A230X | 564-102 | | | | |

GDT Holders

- Holders for the EPCOS range of Gas Discharge Tubes

| G.D.T Series | Mfrs. List No. | Holder Order Code |
|--------------|----------------|-------------------|
| M50- | M50-A1 | 564-217 |
| N80-, A80 | A4-A1 | 564-229 |
| A83- | S8-Clip | 564-230 |
| T80-, T20- | T80-A1 | 564-242 |

FIL116

| Mfrs. List No. | Order Code | 1+ | Price Each | | |
|----------------|------------|----|------------|-----|------|
| | | | 25+ | 50+ | 100+ |
| M50-A1 | 564-217 | | | | |
| A4-A1 | 564-229 | | | | |
| S8-Clip | 564-230 | | | | |
| T80-A1 | 564-242 | | | | |

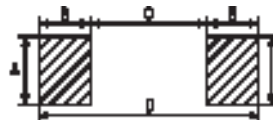
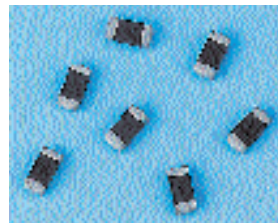
Varistors

Varistor Safety Precautions

Should the varistor be subjected to surge currents and energy levels in excess of maximum ratings it may physically fail by package rupture or expulsion of material.
 If not fused the varistor should be located away from other components or be physically shielded from them.

SIOV Metal Oxide Varistors – Surface Mount

SIEMENS



| Case Size | A | B | C | D |
|-----------|-----|-----|-----|------|
| 0603 | 1.0 | 1.0 | 0.6 | 3.0 |
| 0805 | 1.4 | 1.2 | 1.0 | 3.4 |
| 1206 | 1.8 | 1.2 | 2.1 | 4.5 |
| 1210 | 2.8 | 1.2 | 2.1 | 4.5 |
| 3225 | 3.5 | 2.8 | 4.5 | 10.1 |
| 4032 | 3.5 | 2.8 | 6.5 | 12.1 |

- Surface mount Metal Oxide Varistors
- Popular surface mount case sizes
- Silver palladium terminations up to 1210 case size, tinned copper above

FIL230A

| Max.AC Op. Volt. (V) | Max.DC Op. Volt. (V) | Trans. Energy (J) | Peak Surge 8/20us A | Varistor Volt. Vv (1mA) | Max. Clamp. Voltage V A | Toler. (1mA) % | Mfrs. List No. | Order Code |
|-----------------------|----------------------|-------------------|---------------------|-------------------------|--------------------------|----------------|-------------------|------------|
| 0603 Case Size | | | | | | | | |
| 4 | 5.5 | 0.1 | 30 | 8 | 19 @1A ±20% | | SIOV-CN0603M4G | 967-877 |
| 6 | 8 | 0.1 | 30 | 11 | 27 @1A ±20% | | SIOV-CN0603M6G | 967-889 |
| 7 | 9 | 0.1 | 30 | 12.5 | 27 @1A ±15% | | SIOV-CN0603K7G | 967-890 |
| 8 | 11 | 0.1 | 30 | 15 | 33 @1A ±10% | | SIOV-CN0603L8G | 967-907 |
| 11 | 14 | 0.2 | 30 | 18 | 35 @1A ±10% ^A | | SIOV-CN0603K11G | 967-919 |
| 14 | 18 | 0.2 | 30 | 22 | 40 @1A ±10% | | SIOV-CN0603K14G | 967-920 |
| 0805 Case Size | | | | | | | | |
| 4 | 5.5 | 0.2 | 100 | 8 | 19 @1A ±20% | | SIOV-CN0805M4G | 967-932 |
| 6 | 8 | 0.2 | 120 | 11 | 27 @1A ±15% | | SIOV-CN0805M6G | 967-944 |
| 8 | 11 | 0.2 | 120 | 15 | 33 @1A ±20% | | SIOV-CN0805L8G | 967-956 |
| 11 | 14 | 0.2 | 120 | 18 | 35 @1A ±10% | | SIOV-CN0805K11G | 967-968 |
| 14 | 18 | 0.3 | 120 | 22 | 40 @1A ±10% | | SIOV-CN0805K14G | 967-970 |
| 17 | 22 | 0.3 | 200 | 27 | 46 @1A ±10% | | SIOV-CN0805K17G | 967-981 |
| 20 | 26 | 0.3 | 200 | 33 | 56 @1A ±10% | | SIOV-CN0805K20G | 967-993 |
| 25 | 31 | 0.3 | 200 | 39 | 67 @1A ±10% | | SIOV-CN0805K25G | 968-006 |
| 1206 Case Size | | | | | | | | |
| 4 | 5.5 | 0.3 | 150 | 8 | 17 @1A ±20% | | SIOV-CN1206M4G | 968-018 |
| 6 | 8 | 0.4 | 200 | 11 | 25 @1A ±20% | | SIOV-CN1206M6G | 968-020 |
| 8 | 11 | 0.5 | 200 | 15 | 30 @1A ±15% | | SIOV-CN1206L8G | 968-031 |
| 11 | 14 | 0.5 | 200 | 18 | 33 @1A ±10% | | SIOV-CN1206K11G | 968-043 |
| 14 | 18 | 0.5 | 200 | 22 | 36 @1A ±10% | | SIOV-CN1206K14G | 968-055 |
| 17 | 22 | 1.7 | 400 | 27 | 44 @1A ±10% | | SIOV-CN1206K17G | 968-067 |
| 20 | 26 | 1.9 | 400 | 33 | 54 @1A ±10% | | SIOV-CN1206K20G | 968-079 |
| 25 | 31 | 1.7 | 300 | 39 | 65 @1A ±10% | | SIOV-CN1206K25G | 968-080 |
| 1210 Case Size | | | | | | | | |
| 20 | 26 | 1.9 | 400 | 33 | 54 @2.5A ±10% | | SIOV-CN1210K20G | 968-092 |
| 25 | 31 | 1.7 | 300 | 39 | 65 @2.5A ±10% | | SIOV-CN1210K25G | 968-109 |
| 30 | 38 | 2.0 | 300 | 47 | 77 @2.5A ±10% | | SIOV-CN1210K30G | 968-110 |
| 3225 Case Size | | | | | | | | |
| 130 | 170 | 4.2 | 400 | 205 | 340 @5A ±10% | | SIOV-CU3225K130G2 | 968-122 |
| 140 | 180 | 4.5 | 400 | 220 | 360 @5A ±10% | | SIOV-CU3225K140G2 | 968-134 |
| 150 | 200 | 4.9 | 400 | 240 | 395 @5A ±10% | | SIOV-CU3225K150G2 | 968-146 |
| 175 | 225 | 5.6 | 400 | 270 | 455 @5A ±10% | | SIOV-CU3225K175G2 | 968-158 |
| 230 | 300 | 7.2 | 400 | 360 | 595 @5A ±10% | | SIOV-CU3225K230G2 | 968-160 |
| 250 | 320 | 8.2 | 400 | 390 | 650 @5A ±10% | | SIOV-CU3225K250G2 | 968-171 |
| 275 | 350 | 8.6 | 400 | 430 | 710 @5A ±10% | | SIOV-CU3225K275G2 | 968-183 |
| 300 | 385 | 9.6 | 400 | 470 | 775 @5A ±10% | | SIOV-CU3225K300G2 | 968-195 |
| 4032 Case Size | | | | | | | | |
| 130 | 170 | 9.5 | 1200 | 205 | 340 @10A ±10% | | SIOV-CU4032K130G2 | 968-201 |
| 140 | 180 | 10 | 1200 | 220 | 360 @10A ±10% | | SIOV-CU4032K140G2 | 968-213 |
| 150 | 200 | 11 | 1200 | 240 | 395 @10A ±10% | | SIOV-CU4032K150G2 | 968-225 |
| 175 | 225 | 13 | 1200 | 270 | 455 @10A ±10% | | SIOV-CU4032K175G2 | 968-237 |
| 230 | 300 | 17 | 1200 | 360 | 595 @10A ±10% | | SIOV-CU4032K230G2 | 968-249 |
| 250 | 320 | 19 | 1200 | 390 | 650 @10A ±10% | | SIOV-CU4032K250G2 | 968-250 |
| 275 | 350 | 21 | 1200 | 430 | 710 @10A ±10% | | SIOV-CU4032K275G2 | 968-262 |
| 300 | 385 | 23 | 1200 | 470 | 775 @10A ±10% | | SIOV-CU4032K300G2 | 968-274 |

FIL230B

| Order Multiple = 5 | Price Each | | | | | | |
|--------------------|------------|----|-----|-----|------|------|------|
| Case Size | Order Code | 5+ | 20+ | 50+ | 100+ | 250+ | 500+ |
| 0603 | All Values | | | | | | |
| 0805 | All Values | | | | | | |
| 1206 | All Values | | | | | | |
| 1210 | All Values | | | | | | |
| 3225 | All Values | | | | | | |
| 4032 | All Values | | | | | | |

Continued

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