

14.6 Metaloxide (ZnO) Varistors

| Types | V_V max. | V_{DC} max. | $V_{DC} \pm 10\%$ ($I_{DC} = 1\text{ mA}$) | $\hat{I}_p^{1,2)}$ max. repetitive | $\hat{I}_p^{1,3)}$ max. non- repetitive | $\hat{W}_p^{1,3)}$ max. | \hat{P}_{AV} max. $T_{amb} \leq 70\text{ °C}$ | $\hat{V}_{pmax}(\hat{I}_p^1) = \dots$ | | | w g |
|---|---------------|------------------|---|--|--|----------------------------|---|---------------------------------------|--------------|---------------|--------|
| | V | V | V | A | A | J | W | (10 A) V | (100 A) V | (1000 A) V | |
| Wire terminals ⁴⁾ | | | | | | | | | | | |
| SKVA 14 A 42 | 42 | 56 | 68 | 150 | 4500 | 24,6 | 0,6 | 110 | 130 | 215 | 3 |
| SKVA 14 A 60 | 60 | 85 | 100 | 150 | 4500 | 30,1 | 0,6 | 160 | 185 | 280 | 3 |
| SKVA 20 B 130 | 140 | 180 | 220 | 190 | 6500 | 79,3 | 1,0 | 350 | 395 | 525 | 6 |
| SKVA 14 A 150 | 150 | 200 | 270 | 150 | 4500 | 58,5 | 0,6 | 380 | 440 | 570 | 3 |
| SKVA 14 A 250 | 250 | 325 | 420 | 150 | 4500 | 103 | 0,6 | 670 | 780 | 925 | 3 |
| SKVA 20 B 250 | 250 | 325 | 420 | 190 | 6500 | 146,2 | 1,0 | 580 | 680 | 830 | 6 |
| SKVA 20 B 275 | 280 | 364 | 470 | 190 | 6500 | 163 | 1,0 | 750 | 835 | 1025 | 6 |
| SKVA 14 A 320 | 330 | 429 | 560 | 150 | 4500 | 137 | 0,6 | 800 | 930 | 1300 | 3 |
| SKVA 14 A 420 | 420 | 546 | 710 | 150 | 4500 | 175 | 0,6 | 1000 | 1255 | 1600 | 3 |
| SKVA 20 B 420 | 420 | 546 | 710 | 190 | 6500 | 224 | 1,0 | 1000 | 1255 | 1600 | 6 |
| SKVA 20 B 460 | 460 | 598 | 780 | 190 | 6500 | 289 | 1,0 | 1240 | 1275 | 1650 | 6 |
| SKVA 20 B 550 | 600 | 780 | 1000 | 190 | 6500 | 345 | 1,0 | 1590 | 1760 | 2100 | 6 |
| Plastic package, 1 varistor | | | | | | | | | | | |
| SKVC 20 A 251 | 250 | 320 | $390 \pm 15\%$ | 190 | 6500 | 140 | 0,8 ⁵⁾ | 600 | 650 | 800 | 120 |
| SKVC 20 A 460 | 460 | 615 | $750 \pm 15\%$ | 190 | 6500 | 260 | 0,8 ⁵⁾ | 1150 | 1270 | 1550 | 120 |
| Plastic package, 1 varistor + 1 capacitor 0,1 μF | | | | | | | | | | | |
| SKVC 20 A 460C | 460 | 615 | $750 \pm 15\%$ | 190 | 6500 | 260 | 0,8 ⁵⁾ | 1150 | 1270 | 1550 | 130 |
| Plastic package, 3 varistors | | | | | | | | | | | |
| SKVC 221 | 140 | 180 | $220 \pm 15\%$ | 190 | 6500 | 70 | 0,8 ⁵⁾ | 310 | 340 | 430 | 145 |
| SKVC 391 | 250 | 320 | $390 \pm 15\%$ | 190 | 6500 | 130 | 0,8 ⁵⁾ | 590 | 630 | 790 | 145 |
| SKVC 681 | 420 | 560 | $680 \pm 15\%$ | 190 | 6500 | 155 | 0,8 ⁵⁾ | 1000 | 1100 | 1300 | 145 |
| SKVC 781 | 460 | 615 | $750 \pm 15\%$ | 190 | 6500 | 170 | 0,8 ⁵⁾ | 1100 | 1200 | 1500 | 145 |
| SKVC 911 | 550 | 745 | $910 \pm 15\%$ | 190 | 6500 | 210 | 0,8 ⁵⁾ | 1350 | 1450 | 1900 | 145 |

¹⁾ IEC standard current pulse waveform 8 x 20 μs

²⁾ 10^4 times during lifetime

³⁾ Once during lifetime

⁴⁾ Epoxy encapsulation carries Underwriter Laboratories flammability classification 94V-0

⁵⁾ $T_{case} \leq 85\text{ °C}$. For higher values of P_{AV} see chapter B 4 last page.

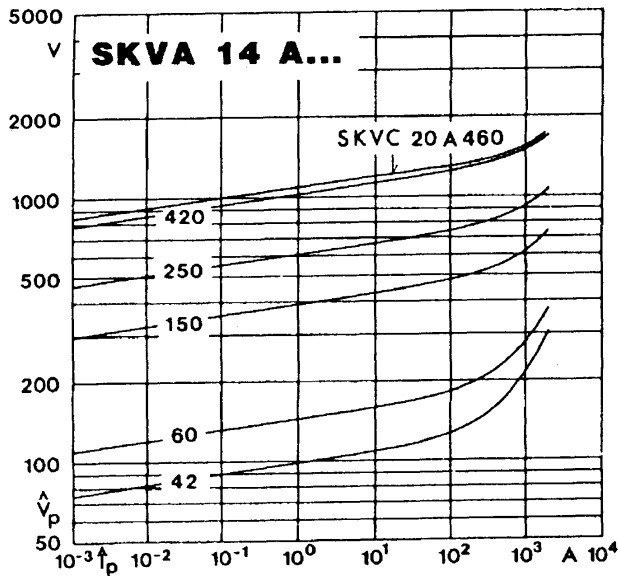


Fig. 2 a Current / voltage characteristics (pulsed)

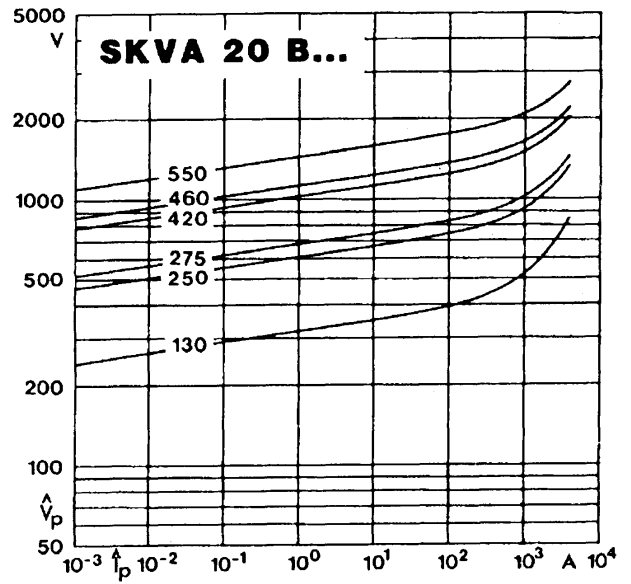


Fig. 2 b Current / voltage characteristics (pulsed)

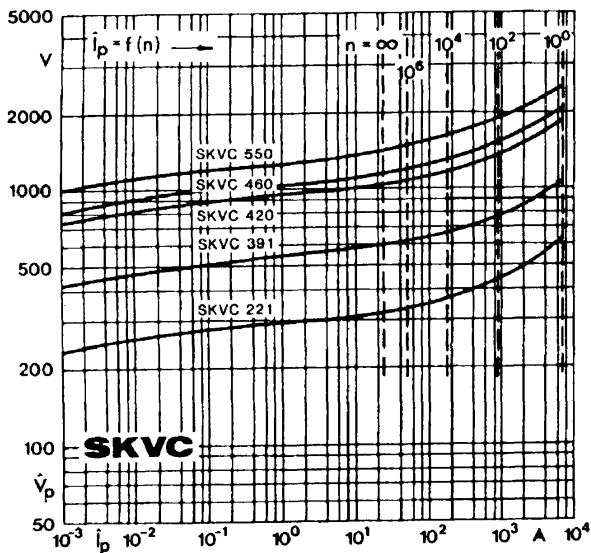


Fig. 2 c Current / voltage characteristics (pulsed)

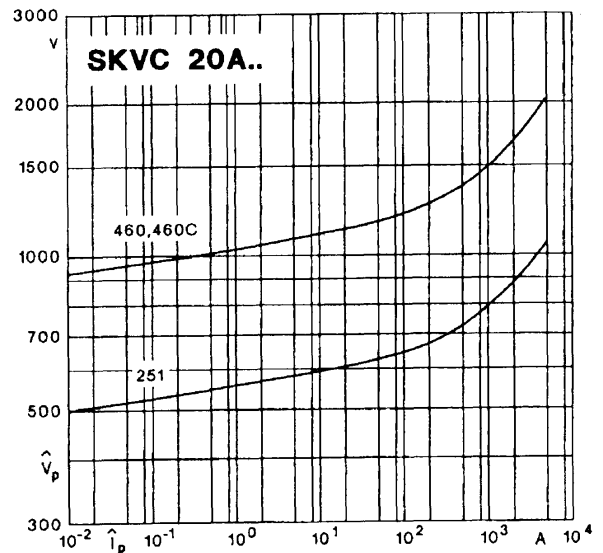


Fig. 2 d Current / voltage characteristics (pulsed)

SKVA

| Types | Dimensions | | | |
|---------------|-----------------|-----------------|-----------------|---------|
| | a max. mm | b max. mm | c max. mm | d mm |
| SKVA 14 A 42 | 16 | 19 | | |
| SKVA 14 A 60 | 16 | 19 | 4 | 2,2 |
| SKVA 20 B 130 | 23 | 26 | | |
| SKVA 14 A 150 | 16 | 19 | 5 | 2,5 |
| SKVA 14 A 250 | 17 | 20 | | 3,3 |
| SKVA 20 B 250 | 24 | 27 | | 3,3 |
| SKVA 20 B 275 | 24 | 27 | 6 | 3,6 |
| SKVA 14 A 320 | 17 | 20 | | 4,0 |
| SKVA 14 A 420 | 17 | 20 | 7 | 4,6 |
| SKVA 20 B 420 | 24 | 27 | 7 | 4,6 |
| SKVA 20 B 460 | 24 | 27 | 7 | 5,0 |
| SKVA 20 B 550 | 24 | 27 | 8 | 5,6 |

