

10 Series

■ Ratings and Characteristics

● Operating Temperature Range : -40 to 85 °C ● Storage Temperature Range : -40 to 125 °C

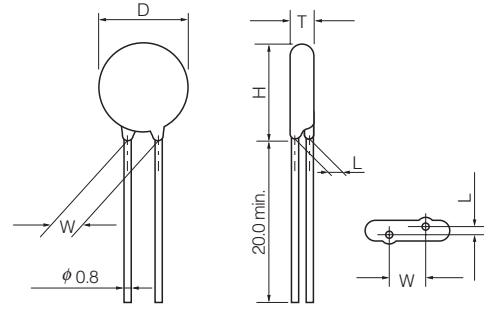
| Part No. | Varistor Voltage | Maximum Allowable Voltage | | Clamping Voltage (max.) **I _p | Rated Power | Maximum Energy | | Maximum Peak Current (8/20 μs) | | Capacitance (max.) @1 kHz (pF) |
|--------------|--------------------|---------------------------|------|---|-------------|-----------------------|-----------|--------------------------------|---------|-----------------------------------|
| | | | | | | (10/1000 μs) | (2 ms) | 1 time | 2 times | |
| | | | | | | V _{1 mA} (V) | ACrms (V) | DC (V) | (V) | |
| ERZV10D180 | 18(16 to 20) | 11 | 14 | 36 | 0.05 | 2.6 | 2.2 | 1000 | 500 | 16000 |
| ERZV10D220 | 22(20 to 24) | 14 | 18 | 43 | 0.05 | 3.2 | 2.6 | 1000 | 500 | 11000 |
| ERZV10D270 | 27(24 to 30) | 17 | 22 | 53 | 0.05 | 3.9 | 3.2 | 1000 | 500 | 8000 |
| ERZV10D330 | 33(30 to 36) | 20 | 26 | 65 | 0.05 | 4.8 | 4.0 | 1000 | 500 | 6300 |
| ERZV10D390 | 39(35 to 43) | 25 | 31 | 77 | 0.05 | 5.6 | 4.7 | 1000 | 500 | 5200 |
| ERZV10D470 | 47(42 to 52) | 30 | 38 | 93 | 0.05 | 6.8 | 5.6 | 1000 | 500 | 4600 |
| ERZV10D560 | 56(50 to 62) | 35 | 45 | 110 | 0.05 | 8.1 | 6.7 | 1000 | 500 | 3750 |
| ERZV10D680 | 68(61 to 75) | 40 | 56 | 135 | 0.05 | 9.8 | 8.2 | 1000 | 500 | 2800 |
| ERZV10D820 | 82(74 to 90) | 50 | 65 | 135 | 0.4 | 14 | 10 | 3500 | 2500 | 2000 |
| ERZV10D101 | 100(90 to 110) | 60 | 85 | 165 | 0.4 | 17 | 12 | 3500 | 2500 | 1700 |
| ERZV10D121 | 120(108 to 132) | 75 | 100 | 200 | 0.4 | 20 | 14.5 | 3500 | 2500 | 1400 |
| ERZV10D151 | 150(135 to 165) | 95 | 125 | 250 | 0.4 | 25 | 18 | 3500 | 2500 | 1100 |
| ERZV10D201 | 200(185 to 225) | 130 | 170 | 340 | 0.4 | 35 | 25 | 3500 | 2500 | 430 |
| ERZV10D221 | 220(198 to 242) | 140 | 180 | 360 | 0.4 | 39 | 27.5 | 3500 | 2500 | 410 |
| ERZV10D241 | 240(216 to 264) | 150 | 200 | 395 | 0.4 | 42 | 30 | 3500 | 2500 | 380 |
| ERZV10D271 | 270(247 to 303) | 175 | 225 | 455 | 0.4 | 49 | 35 | 3500 | 2500 | 350 |
| ERZV10D331 | 330(297 to 363) | 210 | 270 | 545 | 0.4 | 58 | 42 | 3500 | 2500 | 300 |
| ERZV10D361 | 360(324 to 396) | 230 | 300 | 595 | 0.4 | 65 | 45 | 3500 | 2500 | 300 |
| ERZV10D391 | 390(351 to 429) | 250 | 320 | 650 | 0.4 | 70 | 50 | 3500 | 2500 | 300 |
| ERZV10D431 | 430(387 to 473) | 275 | 350 | 710 | 0.4 | 80 | 55 | 3500 | 2500 | 270 |
| ERZV10D471 | 470(423 to 517) | 300 | 385 | 775 | 0.4 | 85 | 60 | 3500 | 2500 | 230 |
| ERZV10D511 | 510(459 to 561) | 320 | 410 | 845 | 0.4 | 92 | 67 | 3500 | 2500 | 210 |
| ERZV10D621 | 620(558 to 682) | 385 | 505 | 1025 | 0.4 | 92 | 67 | 3500 | 2500 | 190 |
| ERZV10D681 | 680(612 to 748) | 420 | 560 | 1120 | 0.4 | 92 | 67 | 3500 | 2500 | 170 |
| ERZV10D751 | 750(675 to 825) | 460 | 615 | 1240 | 0.4 | 100 | 70 | 3500 | 2500 | 160 |
| ERZV10D821 | 820(738 to 902) | 510 | 670 | 1355 | 0.4 | 110 | 80 | 3500 | 2500 | 140 |
| ERZV10D911 | 910(819 to 1001) | 550 | 745 | 1500 | 0.4 | 130 | 90 | 3500 | 2500 | 120 |
| ERZV10D102 | 1000(900 to 1100) | 625 | 825 | 1650 | 0.4 | 140 | 100 | 3500 | 2500 | 110 |
| ERZV10D112 | 1100(990 to 1210) | 680 | 895 | 1815 | 0.4 | 155 | 110 | 3500 | 2500 | 110 |
| ERZV10D182CS | 1800(1700 to 1980) | 1000 | 1465 | 2970 | 0.4 | 247 | 183 | 3500 | 2500 | 70* |

* Measured at 1 MHz **I_p Measuring current of clamping voltage 180 to 680 : 5 A, 820 to 182 : 25 A

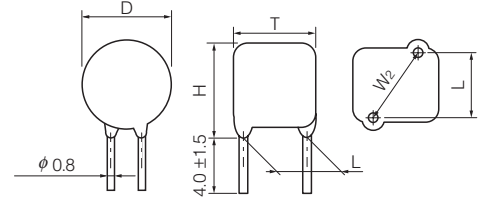
■ Dimensions in mm (not to scale) * Refer to page 99 to 100 about leads cut type and taping.

| Part No. | D max. | T max. | W±1.0 | H max. | L±1.0 |
|--------------|--------|--------|-------|--------|------------|
| ERZV10D180 | 11.5 | 4.6 | 7.5 | 14.5 | 1.3 |
| ERZV10D220 | 11.5 | 4.7 | 7.5 | 14.5 | 1.4 |
| ERZV10D270 | 11.5 | 4.8 | 7.5 | 14.5 | 1.5 |
| ERZV10D330 | 11.5 | 5.0 | 7.5 | 14.5 | 1.7 |
| ERZV10D390 | 11.5 | 4.9 | 7.5 | 14.5 | 1.6 |
| ERZV10D470 | 11.5 | 5.0 | 7.5 | 14.5 | 1.7 |
| ERZV10D560 | 11.5 | 5.1 | 7.5 | 14.5 | 1.8 |
| ERZV10D680 | 11.5 | 5.3 | 7.5 | 14.5 | 2.0 |
| ERZV10D820 | 11.5 | 4.5 | 7.5 | 14.5 | 1.6 |
| ERZV10D101 | 11.5 | 4.7 | 7.5 | 14.5 | 1.8 |
| ERZV10D121 | 11.5 | 4.9 | 7.5 | 14.5 | 2.0 |
| ERZV10D151 | 11.5 | 5.2 | 7.5 | 14.5 | 2.3 |
| ERZV10D201 | 11.5 | 4.8 | 7.5 | 14.5 | 1.9 |
| ERZV10D221 | 11.5 | 4.9 | 7.5 | 14.5 | 2.0 |
| ERZV10D241 | 11.5 | 5.0 | 7.5 | 14.5 | 2.1 |
| ERZV10D271 | 11.5 | 5.2 | 7.5 | 14.5 | 2.3 |
| ERZV10D331 | 11.5 | 5.5 | 7.5 | 14.5 | 2.6 |
| ERZV10D361 | 11.5 | 5.7 | 7.5 | 14.5 | 2.8 |
| ERZV10D391 | 11.5 | 5.8 | 7.5 | 14.5 | 2.9 |
| ERZV10D431 | 11.5 | 6.0 | 7.5 | 14.5 | 3.1 |
| ERZV10D471 | 11.5 | 6.2 | 7.5 | 14.5 | 3.3 |
| ERZV10D511 | 11.5 | 6.4 | 7.5 | 14.5 | 3.5 |
| ERZV10D621 | 12.5 | 7.1 | 7.5 | 15.5 | 4.2 |
| ERZV10D681 | 12.5 | 7.4 | 7.5 | 15.5 | 4.5 |
| ERZV10D751 | 12.5 | 7.8 | 7.5 | 15.5 | 4.9 |
| ERZV10D821 | 12.5 | 8.1 | 7.5 | 15.5 | 5.2 |
| ERZV10D911 | 12.5 | 8.6 | 7.5 | 15.5 | 5.7 |
| ERZV10D102 | 12.5 | 9.1 | 7.5 | 15.5 | 6.2 |
| ERZV10D112 | 12.5 | 9.7 | 7.5 | 15.5 | 6.8 |
| ERZV10D182CS | 13.5 | 14.4 | 11.0* | 16.5 | 10.0(±1.5) |

*: W₂

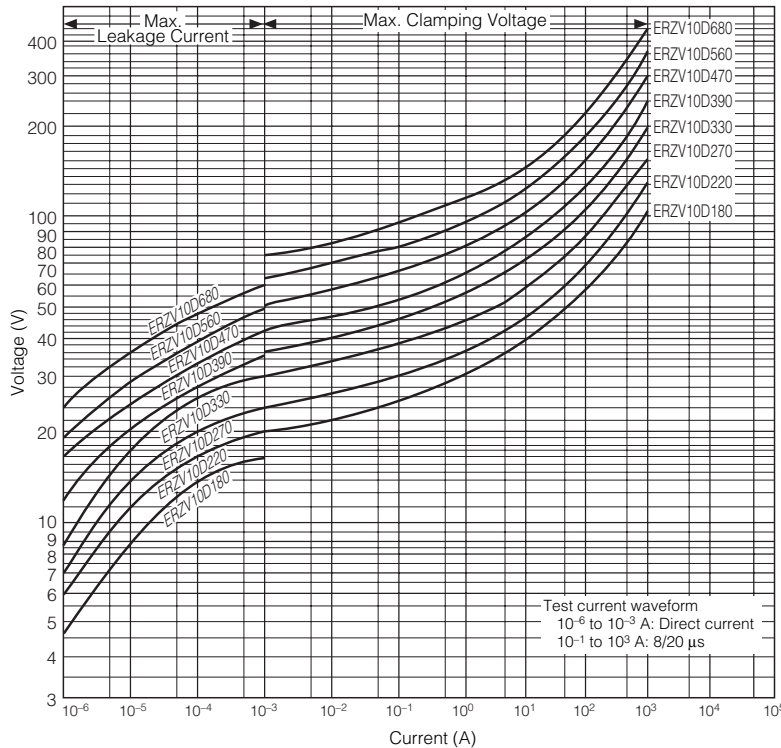


(ERZV10D182CS)



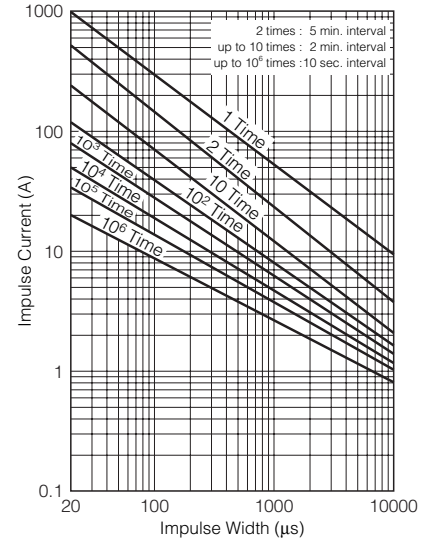
■ Typical Characteristics Voltage vs. Current

ERZV10D180 to ERZV10D680



Impulse Derating (Relation between impulse width and impulse current multiple)

ERZV10D180 to ERZV10D680

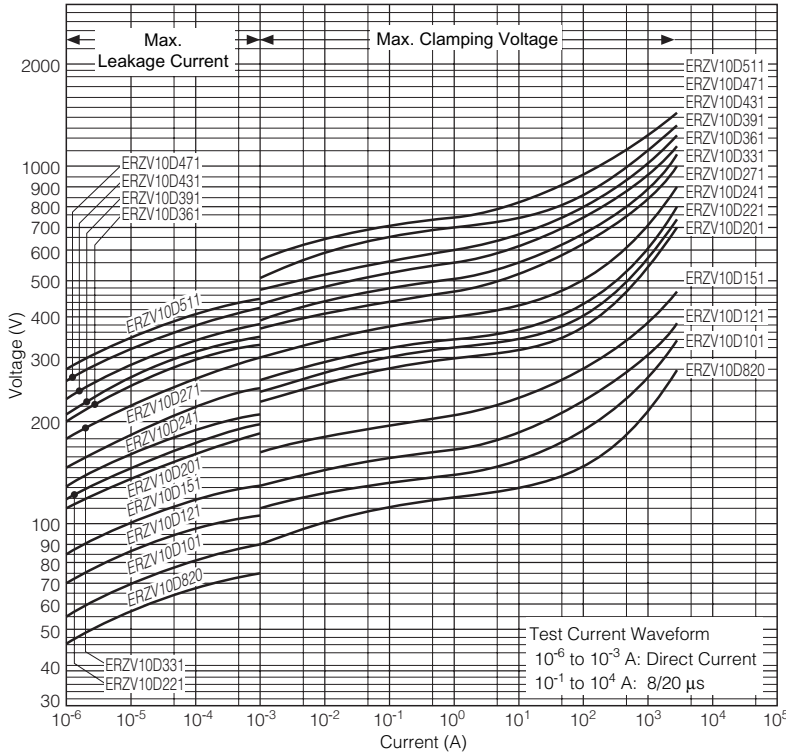


Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

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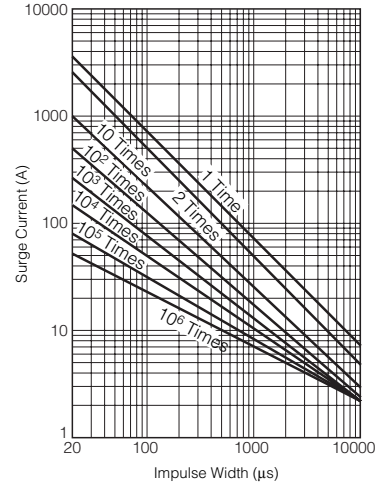
Typical Characteristics Voltage vs. Current

ERZV10D820 to ERZV10D511

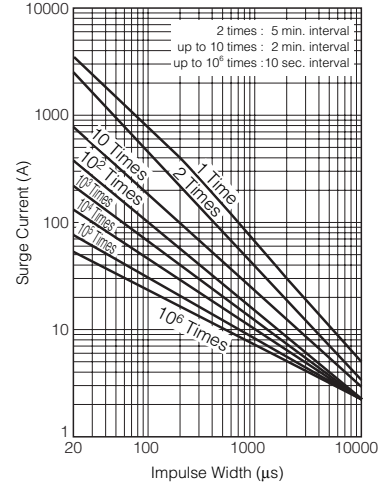


Impulse Derating (Relation between impulse width and impulse current multiple)

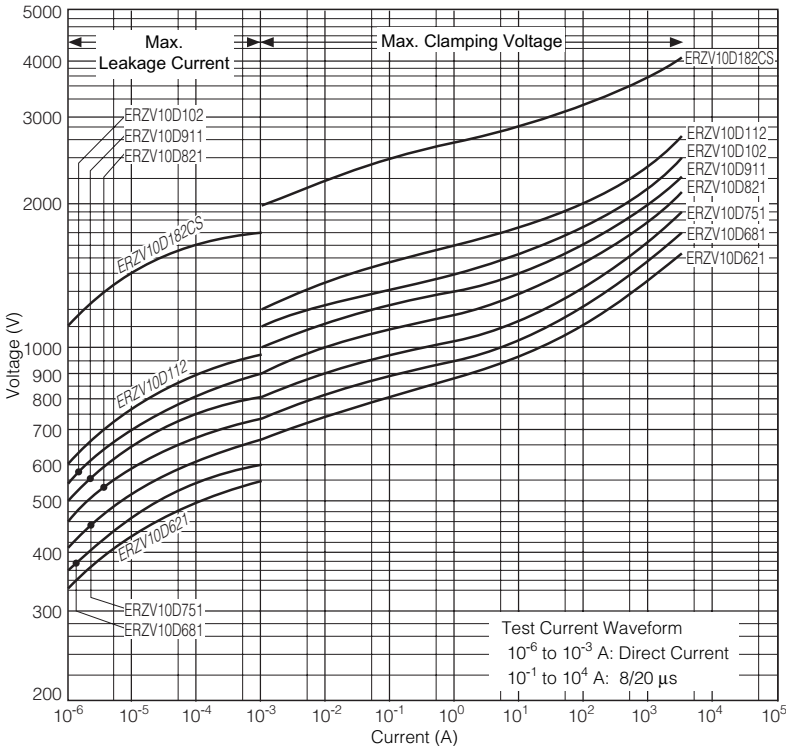
ERZV10D820 to ERZV10D511



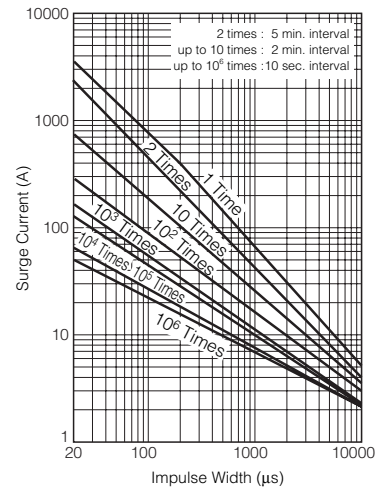
ERZV10D621 to ERZV10D112



ERZV10D621 to ERZV10D182CS



ERZV10D182CS



"ZNR" Transient/Surge Absorbers

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