

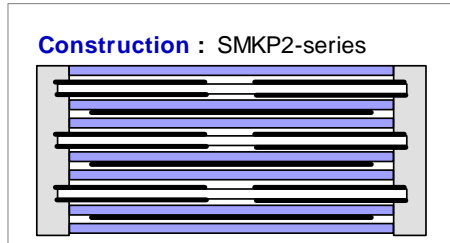
Snubber Capacitor – IGBT SMKP2 series

Application :

For protection against voltage and current transients in IGBT modules and applications where high dv/dt is encountered

Constructions :

- Low inductance construction
- Flame retardant plastic case and Epoxy Resin UL94V-0
- High Current carrying capacity Tinned Terminals for direct mounting the capacitor to IGBT module
- other Terminals also available



Electrical Characteristic :

Capacitance : 0.1uF ~ 3uF at 1kHz +25C
 Capacitance Tolerance : ±5%(J), ±10% (K)

| | | | | |
|------------------|---------|---------|---------|---------|
| Rated Voltage Ur | 1000Vdc | 1200Vdc | 1600Vdc | 2000Vdc |
| | 500Vac | 550Vac | 630Vac | 650Vac |

Test Voltage : between Terminals :1.6xUr Vdc for 60s +25C
 Terminals to Case : 5kVac at 50Hz 60s

Dissipation Factor : <math> < 5 \times 10^{-4}</math> at 1kHz +25C

Rated Temperature : -20C ~ +85C / -40 ~ +105C

Full rated voltage at 85C, derate linearly to 50% rated voltage at 105C.

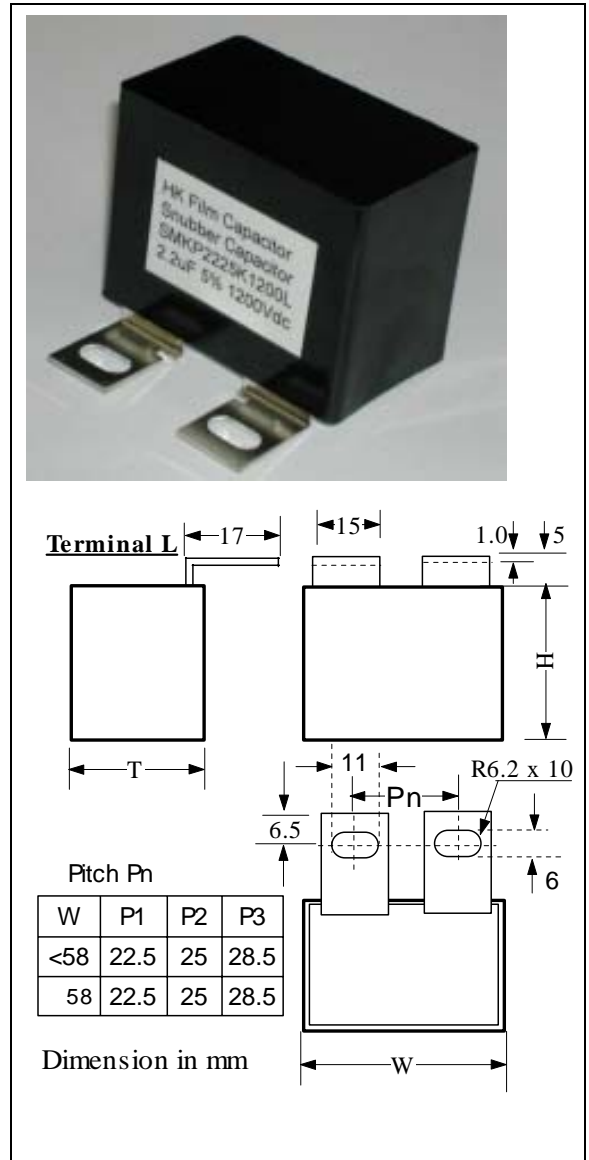
Equivalent Series Resistance ESR : see item table

Equivalent Series Inductance ESL : < 22nH

Insulation Resistance : at +25C 500Vdc 1minute.

C<0.33uF : >150,000M ohm

C>0.33uF : >50,000M ohm



Specifications and Size

| Part Number | Cap | Voltage | | dV/dt | Ipeak | ESR 100kHz 25C | Irms 55C | Dimension mm ±1mm |
|------------------|------|---------|-----|-------|-------|----------------|----------|-------------------|
| | uF | Vdc | Vac | V/us | A | m ohm | A | W x H x T |
| SMKP2-154X1000DL | 0.15 | 1000 | 500 | 800 | 120 | 9.1 | 7.9 | 45 x 32 x 22 |
| SMKP2-224X1000DL | 0.22 | | | 800 | 176 | 8.5 | 9.0 | 45 x 32 x 22 |
| SMKP2-334X1000DL | 0.33 | | | 800 | 264 | 7.6 | 11 | 45 x 32 x 22 |
| SMKP2-474X1000DL | 0.47 | | | 480 | 226 | 7.1 | 12.4 | 45 x 32 x 22 |
| SMKP2-564X1000DL | 0.56 | | | 480 | 269 | 6.9 | 14 | 45 x 32 x 22 |
| SMKP2-684X1000DL | 0.68 | | | 480 | 326 | 6.3 | 14.5 | 45 x 32 x 22 |
| SMKP2-754X1000DL | 0.75 | | | 480 | 360 | 5.6 | 15 | 45 x 32 x 22 |
| SMKP2-105X1000DL | 1.0 | | | 480 | 480 | 4.4 | 17.2 | 51 x 36 x 25 |
| SMKP2-125X1000DL | 1.2 | | | 480 | 576 | 3.6 | 19 | 51 x 36 x 25 |
| SMKP2-155X1000DL | 1.5 | | | 480 | 720 | 2.7 | 21.3 | 51 x 40 x 30 |
| SMKP2-205X1000DL | 2.0 | | | 320 | 640 | 2.5 | 25 | 59 x 45 x 35 |
| SMKP2-225X1000DL | 2.2 | | | 320 | 704 | 2.4 | 27 | 59 x 45 x 35 |
| SMKP2-305X1000DL | 3.0 | | | 320 | 960 | 2.2 | 29 | 59 x 45 x 35 |

Specifications and Size

| Part Number | Cap | Voltage | | dV/dt | Ipeak | ESR 100kHz 25C | Irms 55C | Dimension mm ±1mm |
|------------------|------|---------|-----|-------|-------|-------------------|----------|----------------------|
| | uF | Vdc | Vac | V/us | A | m ohm | A | W x H x T |
| SMKP2-154X1200DL | 0.15 | 1200 | 550 | 900 | 135 | 9.1 | 8.4 | 45 x 32 x 22 |
| SMKP2-224X1200DL | 0.22 | | | 900 | 198 | 8.5 | 11 | 45 x 32 x 22 |
| SMKP2-334X1200DL | 0.33 | | | 900 | 297 | 7.6 | 11.5 | 45 x 32 x 22 |
| SMKP2-474X1200DL | 0.47 | | | 550 | 258 | 7.1 | 13.5 | 45 x 32 x 22 |
| SMKP2-564X1200DL | 0.56 | | | 550 | 308 | 6.9 | 14.2 | 45 x 32 x 22 |
| SMKP2-684X1200DL | 0.68 | | | 550 | 374 | 6.3 | 15.6 | 45 x 32 x 22 |
| SMKP2-754X1200DL | 0.75 | | | 550 | 412 | 5.6 | 16.8 | 51 x 36 x 25 |
| SMKP2-105X1200DL | 1.0 | | | 550 | 550 | 4.4 | 18.6 | 51 x 36 x 25 |
| SMKP2-125X1200DL | 1.2 | | | 550 | 660 | 3.6 | 21 | 51 x 40 x 30 |
| SMKP2-155X1200DL | 1.5 | | | 550 | 825 | 2.7 | 23 | 51 x 40 x 30 |
| SMKP2-205X1200DL | 2.0 | | | 350 | 700 | 2.5 | 28 | 59 x 45 x 35 |
| SMKP2-225X1200DL | 2.2 | | | 350 | 770 | 2.4 | 29 | 59 x 45 x 35 |
| SMKP2-305X1200DL | 3.0 | | | 350 | 1050 | 2.1 | 32 | 59 x 45 x 35 |
| SMKP2-104X1600DL | 0.1 | 1600 | 630 | 1000 | 100 | 10 | 9.4 | 45 x 32 x 22 |
| SMKP2-154X1600DL | 0.15 | | | 1000 | 150 | 8 | 11.5 | 45 x 32 x 22 |
| SMKP2-224X1600DL | 0.22 | | | 1000 | 220 | 7.5 | 13 | 45 x 32 x 22 |
| SMKP2-334X1600DL | 0.33 | | | 800 | 264 | 7.0 | 14 | 51 x 36 x 25 |
| SMKP2-474X1600DL | 0.47 | | | 800 | 376 | 6.6 | 16 | 51 x 36 x 25 |
| SMKP2-564X1600DL | 0.56 | | | 800 | 448 | 6.2 | 18 | 58 x 37 x 32 |
| SMKP2-684X1600DL | 0.68 | | | 800 | 544 | 6.0 | 19 | 58 x 37 x 32 |
| SMKP2-754X1600DL | 0.75 | | | 500 | 375 | 5.8 | 20 | 58 x 37 x 32 |
| SMKP2-105X1600DL | 1.0 | | | 500 | 500 | 3.2 | 23.8 | 58 x 37 x 32 |
| SMKP2-125X1600DL | 1.2 | | | 500 | 600 | 2.8 | 25 | 59 x 45 x 35 |
| SMKP2-104X2000DL | 0.1 | 2000 | 650 | 1100 | 110 | 8 | 10 | 45 x 32 x 22 |
| SMKP2-154X2000DL | 0.15 | | | 1100 | 165 | 7.5 | 11 | 45 x 32 x 22 |
| SMKP2-224X2000DL | 0.22 | | | 850 | 187 | 7 | 13.8 | 45 x 32 x 22 |
| SMKP2-334X2000DL | 0.33 | | | 850 | 280 | 6.4 | 16.9 | 51 x 36 x 25 |
| SMKP2-474X2000DL | 0.47 | | | 850 | 400 | 6 | 19 | 51 x 40 x 30 |
| SMKP2-564X2000DL | 0.56 | | | 600 | 336 | 5.5 | 21.5 | 58 x 37 x 32 |
| SMKP2-684X2000DL | 0.68 | | | 600 | 408 | 5.0 | 24 | 59 x 45 x 35 |
| SMKP2-754X2000DL | 0.75 | | | 600 | 450 | 4.2 | 25 | 59 x 45 x 35 |

Where X is for Capacitance tolerance : J for +/-5%, K for +/-10% and M for +/-20%

Other Capacitance, Voltage, RMS Current and Terminals is available. Please contact us for a design suited to your particular needs.