

SMM Series

- Longer life from SMQ series
- Endurance with ripple current : 3,000 hours at 85°C
- Non solvent resistant type
- RoHS2 Compliant



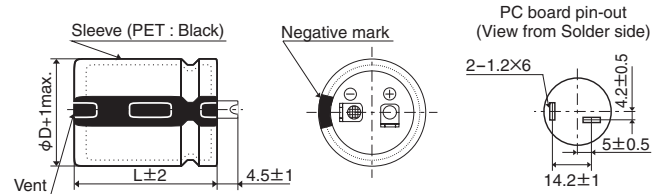
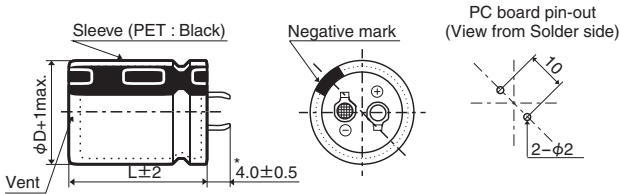
SPECIFICATIONS

| Items | Characteristics | | |
|--|--|---------------------------------------|------------|
| Category | -25 to +85°C | | |
| Temperature Range | -25 to +85°C | | |
| Rated Voltage Range | 160 to 450V _{dc} | | |
| Capacitance Tolerance | ±20% (M) (at 20°C, 120Hz) | | |
| Leakage Current | I ≤ 3/CV Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 5 minutes) | | |
| Dissipation Factor (tan δ) | Rated voltage (V _{dc}) | 160 to 400V | 420 & 450V |
| | tan δ (Max.) | 0.15 | 0.20 |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V _{dc}) | 160 to 400V | 420 & 450V |
| | Z(-25°C)/Z(+20°C) | 4 | 8 |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 3,000 hours at 85°C. | | |
| | Capacitance change | ≤ ±20% of the initial value | |
| | D.F. (tan δ) | ≤ 200% of the initial specified value | |
| | Leakage current | ≤ The initial specified value | |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. | | |
| | Capacitance change | ≤ ±15% of the initial value | |
| | D.F. (tan δ) | ≤ 150% of the initial specified value | |
| | Leakage current | ≤ The initial specified value | |

DIMENSIONS [mm]

● Terminal Code : VS (φ22 to φ35) : Standard

● Terminal Code : LI (φ35)



* φD=35mm : 3.5 ± 0.5mm

The standard design has no plastic disc.

PART NUMBERING SYSTEM



Please refer to "Product code guide (snap-in type)"

RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

| Frequency(Hz) | 50 | 120 | 300 | 1k | 10k | 50k |
|---------------------------|------|------|------|------|------|------|
| 160 to 250V _{dc} | 0.81 | 1.00 | 1.17 | 1.32 | 1.45 | 1.50 |
| 315 to 450V _{dc} | 0.77 | 1.00 | 1.16 | 1.30 | 1.41 | 1.43 |

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

◆STANDARD RATINGS

| WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/ 85°C, 120Hz) | Part No. | WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/ 85°C, 120Hz) | Part No. |
|--------------------------|-------------|-----------------------|-------|---|--------------------|--------------------------|-------------|-----------------------|--------------------|---|--------------------|
| | | | | | | | | | | | |
| 160 | 270 | 22 × 20 | 0.15 | 1.30 | ESMM161VSN271MP20S | 200 | 390 | 22 × 30 | 0.15 | 1.73 | ESMM201VSN391MP30S |
| | 390 | 22 × 25 | 0.15 | 1.63 | ESMM161VSN391MP25S | | 390 | 25.4 × 25 | 0.15 | 1.71 | ESMM201VSN391MQ25S |
| | 390 | 25.4 × 20 | 0.15 | 1.62 | ESMM161VSN391MQ20S | | 390 | 30 × 20 | 0.15 | 1.71 | ESMM201VSN391MR20S |
| | 470 | 22 × 30 | 0.15 | 1.86 | ESMM161VSN471MP30S | | 470 | 22 × 30 | 0.15 | 1.97 | ESMM201VSN471MP30S |
| | 470 | 25.4 × 25 | 0.15 | 1.86 | ESMM161VSN471MQ25S | | 470 | 25.4 × 25 | 0.15 | 1.95 | ESMM201VSN471MQ25S |
| | 560 | 22 × 30 | 0.15 | 2.15 | ESMM161VSN561MP30S | | 470 | 30 × 20 | 0.15 | 1.88 | ESMM201VSN471MR20S |
| | 560 | 25.4 × 25 | 0.15 | 2.15 | ESMM161VSN561MQ25S | | 560 | 22 × 35 | 0.15 | 2.18 | ESMM201VSN561MP35S |
| | 560 | 30 × 20 | 0.15 | 2.05 | ESMM161VSN561MR20S | | 560 | 25.4 × 30 | 0.15 | 2.15 | ESMM201VSN561MQ30S |
| | 680 | 22 × 35 | 0.15 | 2.35 | ESMM161VSN681MP35S | | 560 | 30 × 25 | 0.15 | 2.15 | ESMM201VSN561MR25S |
| | 680 | 25.4 × 30 | 0.15 | 2.33 | ESMM161VSN681MQ30S | | 560 | 35 × 20 | 0.15 | 2.05 | ESMM201VSN561MA20S |
| | 680 | 30 × 25 | 0.15 | 2.33 | ESMM161VSN681MR25S | | 680 | 22 × 40 | 0.15 | 2.48 | ESMM201VSN681MP40S |
| | 680 | 35 × 20 | 0.15 | 2.26 | ESMM161VSN681MA20S | | 680 | 25.4 × 30 | 0.15 | 2.48 | ESMM201VSN681MQ30S |
| | 820 | 22 × 40 | 0.15 | 2.68 | ESMM161VSN821MP40S | | 680 | 30 × 25 | 0.15 | 2.48 | ESMM201VSN681MR25S |
| | 820 | 25.4 × 30 | 0.15 | 2.65 | ESMM161VSN821MQ30S | | 680 | 35 × 20 | 0.15 | 2.36 | ESMM201VSN681MA20S |
| | 820 | 30 × 25 | 0.15 | 2.64 | ESMM161VSN821MR25S | | 820 | 22 × 45 | 0.15 | 2.81 | ESMM201VSN821MP45S |
| | 820 | 35 × 20 | 0.15 | 2.49 | ESMM161VSN821MA20S | | 820 | 25.4 × 35 | 0.15 | 2.79 | ESMM201VSN821MQ35S |
| | 1,000 | 22 × 45 | 0.15 | 3.02 | ESMM161VSN102MP45S | | 820 | 30 × 30 | 0.15 | 2.80 | ESMM201VSN821MR30S |
| | 1,000 | 25.4 × 35 | 0.15 | 3.00 | ESMM161VSN102MQ35S | | 820 | 35 × 25 | 0.15 | 2.83 | ESMM201VSN821MA25S |
| | 1,000 | 30 × 30 | 0.15 | 2.96 | ESMM161VSN102MR30S | | 1,000 | 22 × 50 | 0.15 | 3.28 | ESMM201VSN102MP50S |
| | 1,000 | 35 × 25 | 0.15 | 3.13 | ESMM161VSN102MA25S | | 1,000 | 25.4 × 40 | 0.15 | 3.28 | ESMM201VSN102MQ40S |
| | 1,200 | 22 × 50 | 0.15 | 3.47 | ESMM161VSN122MP50S | | 1,000 | 30 × 35 | 0.15 | 3.15 | ESMM201VSN102MR35S |
| | 1,200 | 25.4 × 40 | 0.15 | 3.43 | ESMM161VSN122MQ40S | | 1,000 | 35 × 30 | 0.15 | 3.26 | ESMM201VSN102MA30S |
| | 1,200 | 30 × 30 | 0.15 | 3.41 | ESMM161VSN122MR30S | | 1,200 | 25.4 × 45 | 0.15 | 3.61 | ESMM201VSN122MQ45S |
| | 1,200 | 35 × 25 | 0.15 | 3.40 | ESMM161VSN122MA25S | | 1,200 | 30 × 35 | 0.15 | 3.61 | ESMM201VSN122MR35S |
| | 1,500 | 25.4 × 50 | 0.15 | 3.96 | ESMM161VSN152MQ50S | | 1,200 | 35 × 30 | 0.15 | 3.57 | ESMM201VSN122MA30S |
| | 1,500 | 30 × 35 | 0.15 | 3.96 | ESMM161VSN152MR35S | | 1,500 | 30 × 45 | 0.15 | 4.13 | ESMM201VSN152MR45S |
| | 1,500 | 35 × 30 | 0.15 | 3.94 | ESMM161VSN152MA30S | | 1,500 | 35 × 35 | 0.15 | 4.06 | ESMM201VSN152MA35S |
| | 1,800 | 30 × 40 | 0.15 | 4.31 | ESMM161VSN182MR40S | | 1,800 | 30 × 50 | 0.15 | 4.60 | ESMM201VSN182MR50S |
| 1,800 | 35 × 35 | 0.15 | 4.28 | ESMM161VSN182MA35S | 1,800 | 35 × 40 | 0.15 | 4.59 | ESMM201VSN182MA40S | | |
| 2,200 | 30 × 50 | 0.15 | 4.96 | ESMM161VSN222MR50S | 2,200 | 35 × 45 | 0.15 | 5.25 | ESMM201VSN222MA45S | | |
| 2,200 | 35 × 40 | 0.15 | 4.96 | ESMM161VSN222MA40S | 180 | 22 × 20 | 0.15 | 1.06 | ESMM221VSN181MP20S | | |
| 2,700 | 35 × 45 | 0.15 | 5.57 | ESMM161VSN272MA45S | 270 | 22 × 25 | 0.15 | 1.47 | ESMM221VSN271MP25S | | |
| 3,300 | 35 × 50 | 0.15 | 6.21 | ESMM161VSN332MA50S | 270 | 25.4 × 20 | 0.15 | 1.35 | ESMM221VSN271MQ20S | | |
| 180 | 220 | 22 × 20 | 0.15 | 1.18 | ESMM181VSN221MP20S | 330 | 22 × 30 | 0.15 | 1.70 | ESMM221VSN331MP30S | |
| | 330 | 22 × 25 | 0.15 | 1.77 | ESMM181VSN331MP25S | 330 | 25.4 × 25 | 0.15 | 1.69 | ESMM221VSN331MQ25S | |
| | 330 | 25.4 × 20 | 0.15 | 1.49 | ESMM181VSN331MQ20S | 330 | 30 × 20 | 0.15 | 1.58 | ESMM221VSN331MR20S | |
| | 390 | 22 × 25 | 0.15 | 1.84 | ESMM181VSN391MP25S | 390 | 22 × 30 | 0.15 | 1.89 | ESMM221VSN391MP30S | |
| | 470 | 22 × 30 | 0.15 | 1.91 | ESMM181VSN471MP30S | 390 | 25.4 × 25 | 0.15 | 1.84 | ESMM221VSN391MQ25S | |
| | 470 | 25.4 × 25 | 0.15 | 2.08 | ESMM181VSN471MQ25S | 390 | 30 × 20 | 0.15 | 1.71 | ESMM221VSN391MR20S | |
| | 470 | 30 × 20 | 0.15 | 1.88 | ESMM181VSN471MR20S | 470 | 22 × 35 | 0.15 | 2.08 | ESMM221VSN471MP35S | |
| | 560 | 22 × 35 | 0.15 | 2.25 | ESMM181VSN561MP35S | 470 | 25.4 × 30 | 0.15 | 2.08 | ESMM221VSN471MQ30S | |
| | 560 | 25.4 × 25 | 0.15 | 2.25 | ESMM181VSN561MQ25S | 470 | 30 × 25 | 0.15 | 2.12 | ESMM221VSN471MR25S | |
| | 680 | 22 × 35 | 0.15 | 2.48 | ESMM181VSN681MP35S | 470 | 35 × 20 | 0.15 | 1.88 | ESMM221VSN471MA20S | |
| | 680 | 25.4 × 30 | 0.15 | 2.50 | ESMM181VSN681MQ30S | 560 | 22 × 40 | 0.15 | 2.33 | ESMM221VSN561MP40S | |
| | 680 | 30 × 25 | 0.15 | 2.46 | ESMM181VSN681MR25S | 560 | 25.4 × 35 | 0.15 | 2.38 | ESMM221VSN561MQ35S | |
| | 680 | 35 × 20 | 0.15 | 2.26 | ESMM181VSN681MA20S | 560 | 30 × 25 | 0.15 | 2.31 | ESMM221VSN561MR25S | |
| | 820 | 22 × 40 | 0.15 | 2.86 | ESMM181VSN821MP40S | 560 | 35 × 20 | 0.15 | 2.14 | ESMM221VSN561MA20S | |
| | 820 | 25.4 × 35 | 0.15 | 2.75 | ESMM181VSN821MQ35S | 680 | 22 × 45 | 0.15 | 2.63 | ESMM221VSN681MP45S | |
| | 820 | 30 × 25 | 0.15 | 2.69 | ESMM181VSN821MR25S | 680 | 25.4 × 35 | 0.15 | 2.68 | ESMM221VSN681MQ35S | |
| | 1,000 | 22 × 50 | 0.15 | 3.10 | ESMM181VSN102MP50S | 680 | 30 × 30 | 0.15 | 2.62 | ESMM221VSN681MR30S | |
| | 1,000 | 25.4 × 40 | 0.15 | 3.06 | ESMM181VSN102MQ40S | 680 | 35 × 25 | 0.15 | 2.58 | ESMM221VSN681MA25S | |
| | 1,000 | 30 × 30 | 0.15 | 3.10 | ESMM181VSN102MR30S | 820 | 25.4 × 45 | 0.15 | 3.01 | ESMM221VSN821MQ45S | |
| | 1,000 | 35 × 25 | 0.15 | 2.98 | ESMM181VSN102MA25S | 820 | 30 × 35 | 0.15 | 2.99 | ESMM221VSN821MR35S | |
| | 1,200 | 25.4 × 45 | 0.15 | 3.63 | ESMM181VSN122MQ45S | 820 | 35 × 30 | 0.15 | 2.79 | ESMM221VSN821MA30S | |
| | 1,200 | 30 × 35 | 0.15 | 3.55 | ESMM181VSN122MR35S | 1,000 | 25.4 × 50 | 0.15 | 3.40 | ESMM221VSN102MQ50S | |
| | 1,200 | 35 × 30 | 0.15 | 3.49 | ESMM181VSN122MA30S | 1,000 | 30 × 35 | 0.15 | 3.42 | ESMM221VSN102MR35S | |
| | 1,500 | 30 × 40 | 0.15 | 4.10 | ESMM181VSN152MR40S | 1,000 | 35 × 30 | 0.15 | 3.29 | ESMM221VSN102MA30S | |
| | 1,500 | 35 × 35 | 0.15 | 4.02 | ESMM181VSN152MA35S | 1,200 | 30 × 40 | 0.15 | 3.88 | ESMM221VSN122MR40S | |
| | 1,800 | 30 × 45 | 0.15 | 4.55 | ESMM181VSN182MR45S | 1,200 | 35 × 35 | 0.15 | 3.68 | ESMM221VSN122MA35S | |
| | 1,800 | 35 × 35 | 0.15 | 4.54 | ESMM181VSN182MA35S | 1,500 | 30 × 50 | 0.15 | 4.44 | ESMM221VSN152MR50S | |
| | 2,200 | 35 × 40 | 0.15 | 4.83 | ESMM181VSN222MA40S | 1,500 | 35 × 40 | 0.15 | 4.10 | ESMM221VSN152MA40S | |
| 2,700 | 35 × 50 | 0.15 | 5.30 | ESMM181VSN272MA50S | 1,800 | 35 × 45 | 0.15 | 4.52 | ESMM221VSN182MA45S | | |
| 200 | 220 | 22 × 20 | 0.15 | 1.18 | ESMM201VSN221MP20S | 150 | 22 × 20 | 0.15 | 0.97 | ESMM251VSN151MP20S | |
| | 270 | 22 × 25 | 0.15 | 1.37 | ESMM201VSN271MP25S | 180 | 22 × 20 | 0.15 | 1.06 | ESMM251VSN181MP20S | |
| | 270 | 25.4 × 20 | 0.15 | 1.35 | ESMM201VSN271MQ20S | 220 | 22 × 25 | 0.15 | 1.24 | ESMM251VSN221MP25S | |
| | 330 | 22 × 25 | 0.15 | 1.51 | ESMM201VSN331MP25S | 220 | 25.4 × 20 | 0.15 | 1.22 | ESMM251VSN221MQ20S | |
| | 330 | 25.4 × 20 | 0.15 | 1.49 | ESMM201VSN331MQ20S | 270 | 22 × 25 | 0.15 | 1.50 | ESMM251VSN271MP25S | |

◆ STANDARD RATINGS

| WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/85°C, 120Hz) | Part No. | WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/85°C, 120Hz) | Part No. |
|-----------------------|-----------|--------------------|-------|---|--------------------|-----------------------|-----------|--------------------|--------------------|---|--------------------|
| 250 | 330 | 22 × 30 | 0.15 | 1.66 | ESMM251VSN331MP30S | 350 | 180 | 30 × 20 | 0.15 | 1.16 | ESMM351VSN181MR20S |
| | 330 | 25.4 × 25 | 0.15 | 1.61 | ESMM251VSN331MQ25S | | 220 | 22 × 35 | 0.15 | 1.47 | ESMM351VSN221MP35S |
| | 330 | 30 × 20 | 0.15 | 1.58 | ESMM251VSN331MR20S | | 220 | 25.4 × 30 | 0.15 | 1.53 | ESMM351VSN221MQ30S |
| | 390 | 22 × 35 | 0.15 | 1.88 | ESMM251VSN391MP35S | | 220 | 30 × 25 | 0.15 | 1.54 | ESMM351VSN221MR25S |
| | 390 | 25.4 × 30 | 0.15 | 1.88 | ESMM251VSN391MQ30S | | 220 | 35 × 20 | 0.15 | 1.29 | ESMM351VSN221MA20S |
| | 390 | 30 × 25 | 0.15 | 1.86 | ESMM251VSN391MR25S | | 270 | 22 × 40 | 0.15 | 1.70 | ESMM351VSN271MP40S |
| | 390 | 35 × 20 | 0.15 | 1.71 | ESMM251VSN391MA20S | | 270 | 25.4 × 35 | 0.15 | 1.73 | ESMM351VSN271MQ35S |
| | 470 | 22 × 35 | 0.15 | 2.15 | ESMM251VSN471MP35S | | 270 | 30 × 25 | 0.15 | 1.80 | ESMM351VSN271MR25S |
| | 470 | 25.4 × 35 | 0.15 | 2.15 | ESMM251VSN471MQ35S | | 270 | 35 × 20 | 0.15 | 1.49 | ESMM351VSN271MA20S |
| | 470 | 30 × 25 | 0.15 | 2.05 | ESMM251VSN471MR25S | | 330 | 22 × 45 | 0.15 | 1.87 | ESMM351VSN331MP45S |
| | 470 | 35 × 20 | 0.15 | 1.88 | ESMM251VSN471MA20S | | 330 | 25.4 × 35 | 0.15 | 1.97 | ESMM351VSN331MQ35S |
| | 560 | 22 × 40 | 0.15 | 2.48 | ESMM251VSN561MP40S | | 330 | 30 × 30 | 0.15 | 2.03 | ESMM351VSN331MR30S |
| | 560 | 25.4 × 35 | 0.15 | 2.35 | ESMM251VSN561MQ35S | | 330 | 35 × 25 | 0.15 | 1.80 | ESMM351VSN331MA25S |
| | 560 | 30 × 25 | 0.15 | 2.35 | ESMM251VSN561MR25S | | 390 | 25.4 × 40 | 0.15 | 2.14 | ESMM351VSN391MQ40S |
| | 680 | 22 × 50 | 0.15 | 2.61 | ESMM251VSN681MP50S | | 390 | 30 × 35 | 0.15 | 2.23 | ESMM351VSN391MR35S |
| | 680 | 25.4 × 40 | 0.15 | 2.67 | ESMM251VSN681MQ40S | | 390 | 35 × 30 | 0.15 | 2.30 | ESMM351VSN391MA30S |
| | 680 | 30 × 30 | 0.15 | 2.71 | ESMM251VSN681MR30S | | 470 | 25.4 × 50 | 0.15 | 2.55 | ESMM351VSN471MQ50S |
| | 680 | 35 × 25 | 0.15 | 2.58 | ESMM251VSN681MA25S | | 470 | 30 × 35 | 0.15 | 2.53 | ESMM351VSN471MR35S |
| | 820 | 25.4 × 45 | 0.15 | 3.01 | ESMM251VSN821MQ45S | | 470 | 35 × 30 | 0.15 | 2.55 | ESMM351VSN471MA30S |
| | 820 | 30 × 35 | 0.15 | 2.98 | ESMM251VSN821MR35S | | 560 | 30 × 40 | 0.15 | 2.73 | ESMM351VSN561MR40S |
| 820 | 35 × 30 | 0.15 | 2.96 | ESMM251VSN821MA30S | 560 | 35 × 35 | 0.15 | 2.75 | ESMM351VSN561MA35S | | |
| 1,000 | 30 × 40 | 0.15 | 3.56 | ESMM251VSN102MR40S | 680 | 30 × 50 | 0.15 | 3.15 | ESMM351VSN681MR50S | | |
| 1,000 | 35 × 35 | 0.15 | 3.48 | ESMM251VSN102MA35S | 680 | 35 × 40 | 0.15 | 3.15 | ESMM351VSN681MA40S | | |
| 1,200 | 30 × 45 | 0.15 | 3.99 | ESMM251VSN122MR45S | 820 | 35 × 45 | 0.15 | 3.47 | ESMM351VSN821MA45S | | |
| 1,200 | 35 × 35 | 0.15 | 3.84 | ESMM251VSN122MA35S | 1,000 | 35 × 50 | 0.15 | 3.60 | ESMM351VSN102MA50S | | |
| 1,500 | 35 × 40 | 0.15 | 4.33 | ESMM251VSN152MA40S | 400 | 68 | 22 × 20 | 0.15 | 0.65 | ESMM401VSN680MP20S | |
| 1,800 | 35 × 50 | 0.15 | 4.54 | ESMM251VSN182MA50S | | 82 | 22 × 25 | 0.15 | 0.84 | ESMM401VSN820MP25S | |
| 315 | 100 | 22 × 20 | 0.15 | 0.79 | | ESMM3B1VSN101MP20S | 82 | 25.4 × 20 | 0.15 | 0.74 | ESMM401VSN820MQ20S |
| | 120 | 25.4 × 20 | 0.15 | 0.90 | | ESMM3B1VSN121MQ20S | 100 | 22 × 25 | 0.15 | 0.99 | ESMM401VSN101MP25S |
| | 150 | 22 × 25 | 0.15 | 1.06 | | ESMM3B1VSN151MP25S | 100 | 25.4 × 20 | 0.15 | 0.82 | ESMM401VSN101MQ20S |
| | 150 | 25.4 × 20 | 0.15 | 1.00 | | ESMM3B1VSN151MQ20S | 120 | 22 × 30 | 0.15 | 1.09 | ESMM401VSN121MP30S |
| | 180 | 22 × 30 | 0.15 | 1.29 | | ESMM3B1VSN181MP30S | 120 | 25.4 × 25 | 0.15 | 1.13 | ESMM401VSN121MQ25S |
| | 180 | 25.4 × 25 | 0.15 | 1.38 | | ESMM3B1VSN181MQ25S | 120 | 30 × 20 | 0.15 | 0.95 | ESMM401VSN121MR20S |
| | 180 | 30 × 20 | 0.15 | 1.16 | | ESMM3B1VSN181MR20S | 150 | 22 × 35 | 0.15 | 1.24 | ESMM401VSN151MP35S |
| | 220 | 22 × 30 | 0.15 | 1.41 | | ESMM3B1VSN221MP30S | 150 | 25.4 × 30 | 0.15 | 1.27 | ESMM401VSN151MQ30S |
| | 220 | 25.4 × 25 | 0.15 | 1.47 | | ESMM3B1VSN221MQ25S | 150 | 30 × 25 | 0.15 | 1.20 | ESMM401VSN151MR25S |
| | 220 | 30 × 20 | 0.15 | 1.28 | | ESMM3B1VSN221MR20S | 180 | 22 × 40 | 0.15 | 1.41 | ESMM401VSN181MP40S |
| | 270 | 22 × 35 | 0.15 | 1.68 | | ESMM3B1VSN271MP35S | 180 | 25.4 × 30 | 0.15 | 1.44 | ESMM401VSN181MQ30S |
| | 270 | 25.4 × 30 | 0.15 | 1.70 | | ESMM3B1VSN271MQ30S | 180 | 30 × 25 | 0.15 | 1.52 | ESMM401VSN181MR25S |
| | 270 | 30 × 25 | 0.15 | 1.55 | | ESMM3B1VSN271MR25S | 180 | 35 × 20 | 0.15 | 1.16 | ESMM401VSN181MA20S |
| | 270 | 35 × 20 | 0.15 | 1.43 | | ESMM3B1VSN271MA20S | 220 | 22 × 45 | 0.15 | 1.58 | ESMM401VSN221MP45S |
| | 330 | 22 × 40 | 0.15 | 1.91 | | ESMM3B1VSN331MP40S | 220 | 25.4 × 35 | 0.15 | 1.64 | ESMM401VSN221MQ35S |
| | 330 | 25.4 × 35 | 0.15 | 1.94 | | ESMM3B1VSN331MQ35S | 220 | 30 × 30 | 0.15 | 1.66 | ESMM401VSN221MR30S |
| | 330 | 30 × 25 | 0.15 | 1.98 | | ESMM3B1VSN331MR25S | 220 | 35 × 25 | 0.15 | 1.47 | ESMM401VSN221MA25S |
| | 390 | 22 × 45 | 0.15 | 2.07 | | ESMM3B1VSN391MP45S | 270 | 22 × 50 | 0.15 | 1.65 | ESMM401VSN271MP50S |
| | 390 | 25.4 × 40 | 0.15 | 2.11 | ESMM3B1VSN391MQ40S | 270 | 25.4 × 40 | 0.15 | 1.79 | ESMM401VSN271MQ40S | |
| | 390 | 30 × 30 | 0.15 | 2.15 | ESMM3B1VSN391MR30S | 270 | 30 × 30 | 0.15 | 1.82 | ESMM401VSN271MR30S | |
| 390 | 35 × 25 | 0.15 | 1.95 | ESMM3B1VSN391MA25S | 270 | 35 × 25 | 0.15 | 1.63 | ESMM401VSN271MA25S | | |
| 470 | 25.4 × 45 | 0.15 | 2.31 | ESMM3B1VSN471MQ45S | 330 | 25.4 × 45 | 0.15 | 2.00 | ESMM401VSN331MQ45S | | |
| 470 | 30 × 35 | 0.15 | 2.38 | ESMM3B1VSN471MR35S | 330 | 30 × 35 | 0.15 | 2.05 | ESMM401VSN331MR35S | | |
| 470 | 35 × 30 | 0.15 | 2.46 | ESMM3B1VSN471MA30S | 330 | 35 × 30 | 0.15 | 2.05 | ESMM401VSN331MA30S | | |
| 560 | 25.4 × 50 | 0.15 | 2.46 | ESMM3B1VSN561MQ50S | 390 | 25.4 × 50 | 0.15 | 2.12 | ESMM401VSN391MQ50S | | |
| 560 | 30 × 35 | 0.15 | 2.63 | ESMM3B1VSN561MR35S | 390 | 30 × 40 | 0.15 | 2.26 | ESMM401VSN391MR40S | | |
| 560 | 35 × 30 | 0.15 | 2.69 | ESMM3B1VSN561MA30S | 390 | 35 × 35 | 0.15 | 2.28 | ESMM401VSN391MA35S | | |
| 680 | 30 × 45 | 0.15 | 2.82 | ESMM3B1VSN681MR45S | 470 | 30 × 45 | 0.15 | 2.51 | ESMM401VSN471MR45S | | |
| 680 | 35 × 35 | 0.15 | 3.05 | ESMM3B1VSN681MA35S | 470 | 35 × 35 | 0.15 | 2.54 | ESMM401VSN471MA35S | | |
| 820 | 30 × 50 | 0.15 | 3.28 | ESMM3B1VSN821MR50S | 560 | 30 × 50 | 0.15 | 2.85 | ESMM401VSN561MR50S | | |
| 820 | 35 × 40 | 0.15 | 3.45 | ESMM3B1VSN821MA40S | 560 | 35 × 40 | 0.15 | 2.85 | ESMM401VSN561MA40S | | |
| 1,000 | 35 × 45 | 0.15 | 3.59 | ESMM3B1VSN102MA45S | 680 | 35 × 50 | 0.15 | 3.10 | ESMM401VSN681MA50S | | |
| 350 | 82 | 22 × 20 | 0.15 | 0.72 | ESMM351VSN820MP20S | 420 | 47 | 22 × 20 | 0.20 | 0.54 | ESMM421VSN470MP20S |
| | 120 | 22 × 25 | 0.15 | 1.04 | ESMM351VSN121MP25S | | 56 | 22 × 20 | 0.20 | 0.59 | ESMM421VSN560MP20S |
| | 120 | 25.4 × 20 | 0.15 | 0.90 | ESMM351VSN121MQ20S | | 68 | 25.4 × 20 | 0.20 | 0.68 | ESMM421VSN680MQ20S |
| | 150 | 22 × 30 | 0.15 | 1.20 | ESMM351VSN151MP30S | | 82 | 22 × 25 | 0.20 | 0.85 | ESMM421VSN820MP25S |
| | 150 | 25.4 × 25 | 0.15 | 1.22 | ESMM351VSN151MQ25S | | 82 | 25.4 × 20 | 0.20 | 0.74 | ESMM421VSN820MQ20S |
| | 150 | 30 × 20 | 0.15 | 1.06 | ESMM351VSN151MR20S | | 100 | 22 × 30 | 0.20 | 0.97 | ESMM421VSN101MP30S |
| | 180 | 22 × 30 | 0.15 | 1.34 | ESMM351VSN181MP30S | | 100 | 25.4 × 25 | 0.20 | 0.98 | ESMM421VSN101MQ25S |
| | 180 | 25.4 × 25 | 0.15 | 1.37 | ESMM351VSN181MQ25S | | 100 | 30 × 20 | 0.20 | 0.87 | ESMM421VSN101MR20S |

SMM Series

◆STANDARD RATINGS

| WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/85°C, 120Hz) | Part No. | WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/85°C, 120Hz) | Part No. |
|-----------------------|----------|--------------------|-------|---|--------------------|-----------------------|----------|--------------------|--------------------|---|--------------------|
| 420 | 120 | 22 × 30 | 0.20 | 1.07 | ESMM421VSN121MP30S | 450 | 82 | 25.4 × 20 | 0.20 | 0.74 | ESMM451VSN820MQ20S |
| | 120 | 25.4 × 25 | 0.20 | 1.08 | ESMM421VSN121MQ25S | | 82 | 30 × 20 | 0.20 | 0.79 | ESMM451VSN820MR20S |
| | 120 | 30 × 20 | 0.20 | 0.95 | ESMM421VSN121MR20S | | 100 | 22 × 30 | 0.20 | 0.95 | ESMM451VSN101MP30S |
| | 150 | 22 × 35 | 0.20 | 1.21 | ESMM421VSN151MP35S | | 100 | 25.4 × 25 | 0.20 | 0.97 | ESMM451VSN101MQ25S |
| | 150 | 25.4 × 30 | 0.20 | 1.26 | ESMM421VSN151MQ30S | | 100 | 30 × 20 | 0.20 | 0.87 | ESMM451VSN101MR20S |
| | 150 | 30 × 25 | 0.20 | 1.30 | ESMM421VSN151MR25S | | 120 | 22 × 35 | 0.20 | 1.07 | ESMM451VSN121MP35S |
| | 150 | 35 × 20 | 0.20 | 1.11 | ESMM421VSN151MA20S | | 120 | 25.4 × 30 | 0.20 | 1.09 | ESMM451VSN121MQ30S |
| | 180 | 22 × 40 | 0.20 | 1.33 | ESMM421VSN181MP40S | | 120 | 30 × 25 | 0.20 | 1.12 | ESMM451VSN121MR25S |
| | 180 | 25.4 × 35 | 0.20 | 1.42 | ESMM421VSN181MQ35S | | 120 | 35 × 20 | 0.20 | 0.99 | ESMM451VSN121MA20S |
| | 180 | 30 × 25 | 0.20 | 1.48 | ESMM421VSN181MR25S | | 150 | 22 × 40 | 0.20 | 1.18 | ESMM451VSN151MP40S |
| | 180 | 35 × 20 | 0.20 | 1.16 | ESMM421VSN181MA20S | | 150 | 25.4 × 30 | 0.20 | 1.25 | ESMM451VSN151MQ30S |
| | 220 | 22 × 45 | 0.20 | 1.55 | ESMM421VSN221MP45S | | 150 | 30 × 25 | 0.20 | 1.29 | ESMM451VSN151MR25S |
| | 220 | 25.4 × 35 | 0.20 | 1.58 | ESMM421VSN221MQ35S | | 150 | 35 × 20 | 0.20 | 1.06 | ESMM451VSN151MA20S |
| | 220 | 30 × 30 | 0.20 | 1.65 | ESMM421VSN221MR30S | | 180 | 22 × 45 | 0.20 | 1.32 | ESMM451VSN181MP45S |
| | 220 | 35 × 25 | 0.20 | 1.47 | ESMM421VSN221MA25S | | 180 | 25.4 × 35 | 0.20 | 1.40 | ESMM451VSN181MQ35S |
| | 270 | 25.4 × 40 | 0.20 | 1.74 | ESMM421VSN271MQ40S | | 180 | 30 × 30 | 0.20 | 1.45 | ESMM451VSN181MR30S |
| | 270 | 30 × 35 | 0.20 | 1.90 | ESMM421VSN271MR35S | | 180 | 35 × 25 | 0.20 | 1.33 | ESMM451VSN181MA25S |
| | 270 | 35 × 30 | 0.20 | 1.94 | ESMM421VSN271MA30S | | 220 | 22 × 50 | 0.20 | 1.48 | ESMM451VSN221MP50S |
| | 330 | 25.4 × 50 | 0.20 | 2.20 | ESMM421VSN331MQ50S | | 220 | 25.4 × 40 | 0.20 | 1.59 | ESMM451VSN221MQ40S |
| | 330 | 30 × 35 | 0.20 | 1.98 | ESMM421VSN331MR35S | | 220 | 30 × 30 | 0.20 | 1.64 | ESMM451VSN221MR30S |
| | 330 | 35 × 35 | 0.20 | 2.17 | ESMM421VSN331MA35S | | 220 | 35 × 25 | 0.20 | 1.66 | ESMM451VSN221MA25S |
| | 390 | 30 × 40 | 0.20 | 2.22 | ESMM421VSN391MR40S | | 270 | 25.4 × 45 | 0.20 | 1.73 | ESMM451VSN271MQ45S |
| | 390 | 35 × 35 | 0.20 | 2.27 | ESMM421VSN391MA35S | | 270 | 30 × 35 | 0.20 | 1.89 | ESMM451VSN271MR35S |
| | 470 | 30 × 45 | 0.20 | 2.50 | ESMM421VSN471MR45S | | 270 | 35 × 30 | 0.20 | 1.90 | ESMM451VSN271MA30S |
| 470 | 35 × 40 | 0.20 | 2.61 | ESMM421VSN471MA40S | 330 | 25.4 × 50 | 0.20 | 2.12 | ESMM451VSN331MQ50S | | |
| 560 | 35 × 45 | 0.20 | 2.95 | ESMM421VSN561MA45S | 330 | 30 × 40 | 0.20 | 2.12 | ESMM451VSN331MR40S | | |
| 680 | 35 × 50 | 0.20 | 3.15 | ESMM421VSN681MA50S | 330 | 35 × 35 | 0.20 | 2.15 | ESMM451VSN331MA35S | | |
| 450 | 47 | 22 × 20 | 0.20 | 0.54 | ESMM451VSN470MP20S | 390 | 30 × 45 | 0.20 | 2.35 | ESMM451VSN391MR45S | |
| | 56 | 22 × 20 | 0.20 | 0.59 | ESMM451VSN560MP20S | 390 | 35 × 40 | 0.20 | 2.38 | ESMM451VSN391MA40S | |
| | 68 | 22 × 25 | 0.20 | 0.71 | ESMM451VSN680MP25S | 470 | 30 × 50 | 0.20 | 2.65 | ESMM451VSN471MR50S | |
| | 68 | 25.4 × 20 | 0.20 | 0.68 | ESMM451VSN680MQ20S | 470 | 35 × 45 | 0.20 | 2.68 | ESMM451VSN471MA45S | |
| | 82 | 22 × 25 | 0.20 | 0.86 | ESMM451VSN820MP25S | 560 | 35 × 50 | 0.20 | 2.88 | ESMM451VSN561MA50S | |

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