# MPS SERIES



## ◆ FEATURES

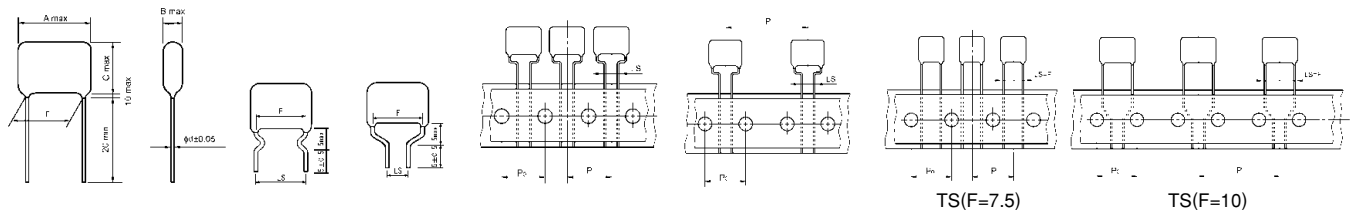
- Low dissipation factor, small and high current.
- For applications where high frequency, high current are required. (TV, display monitor, power supply, lighting Inverter, etc)
- Coated with flame-retardant (UL94 V-0) epoxy resin.
- RoHS compliance.

## ◆SPECIFICATIONS

| | |
|---|---|
| Category temperature | −40°C~+105°C |
| Rated voltage ($U_R$) | 250VDC, 450VDC, 630VDC |
| Capacitance tolerance | ±3%(H), ±5%(J), ±10%(K) |
| tanδ | 0.001max at 1kHz |
| Voltage proof | $U_R$×150% 60s |
| Insulation resistance | 0.33 μF≧:25000MΩmin<br>0.33 μF<: 7500ΩFmin |
| Reference standard | JIS C 5101-16, JIS C 5101-1 |

## ◆OUTLINE

(mm)



Blank H7,Y7,77 S7,W7 Style A, B, D Style C,E TS(F=7.5) TS(F=10) Style S

## ◆PART NUMBER

□□□ Rated Voltage | MPS Series | □□□ Rated capacitance | □ Tolerance | □□□ Sub mark | □□ Suffix

| Symbol | $U_R$ |
|---|---|
| 250 | 250VDC |
| 450 | 450VDC |
| 630 | 630VDC |

| Symbol | Tolerance |
|---|---|
| H | ± 3% |
| J | ± 5% |
| K | ±10% |

| Symbol | Lead style | Symbol | Lead style |
|---|---|---|---|
| Blank | Long lead type | TX | Style B, Ammo pack P=15.0 Po=15.0 LS=5.0 |
| H7 | Lead forming cut LS=10.0 | TL(F=10) TJ(F≧15) | Style C, Ammo pack P=25.4 Po=12.7 LS=5.0 |
| Y7 | Lead forming cut LS=15.0 | TH | Style D, Ammo pack P=15.0 Po=15.0 LS=7.5 |
| 77 | Lead forming cut LS=20.0 | TN | Style E, Ammo pack P=30.0 Po=15.0 LS=7.5 |
| S7 | Lead forming cut LS=5.0 | TS(F=7.5) | Style S, Ammo pack P=12.7 Po=12.7 |
| W7 | Lead forming cut LS=7.5 | TS(F=10) | Style S, Ammo pack P=25.4 Po=12.7 |

## ◆DIMENSIONS AND QUANTITY

### ◆RATED VOLTAGE : 250VDC

| Part No. | cap(μF) | Dimensions (mm) | | | | | | Typical Packaging Quantity (pcs) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Long Lead type | | Taping Ammo pack type - style | | | | |
| | | A | B | C | F ±1.0 | LS ±0.5 | d | Bag | Carton | A<br>TC | B, D<br>TX, TH | C<br>TL, TJ | E<br>TN | S<br>TS |
| 250MPS103□** | 0.01 | 13.0 | 6.0 | 9.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 250MPS123□** | 0.012 | 13.0 | 6.5 | 10.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 250MPS153□** | 0.015 | 13.0 | 7.0 | 10.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS183□** | 0.018 | 13.0 | 7.5 | 11.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS223□** | 0.022 | 13.0 | 8.0 | 11.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS273□** | 0.027 | 13.0 | 8.0 | 13.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 2,000 | – | 500 | 400 | – | 400 |
| 250MPS333□** | 0.033 | 13.0 | 5.5 | 10.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 250MPS393□** | 0.039 | 13.0 | 5.5 | 11.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 250MPS473□** | 0.047 | 13.0 | 6.0 | 11.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS563□** | 0.056 | 13.0 | 6.5 | 12.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS683□** | 0.068 | 13.0 | 6.0 | 11.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 250MPS823□** | 0.082 | 13.0 | 6.5 | 11.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS104□** | 0.1 | 13.0 | 6.0 | 11.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 250MPS124□** | 0.12 | 13.0 | 6.5 | 11.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS154□** | 0.15 | 13.0 | 7.0 | 12.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS184□** | 0.18 | 13.0 | 6.0 | 11.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS224□** | 0.22 | 13.0 | 6.0 | 13.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS274□** | 0.27 | 13.0 | 6.5 | 13.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 250MPS334□** | 0.33 | 13.0 | 7.5 | 14.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 2,000 | – | 500 | 400 | – | 400 |
| 250MPS394□** | 0.39 | 18.0 | 5.5 | 14.0 | 15.0 | 5.0/7.5/15.0 | 0.6 | 100 | 2,000 | – | – | 400 | 400 | – |
| 250MPS474□** | 0.47 | 18.0 | 6.0 | 14.5 | 15.0 | 5.0/7.5/15.0 | 0.6 | 100 | 2,000 | – | – | 400 | 400 | – |
| 250MPS564□** | 0.56 | 18.0 | 6.5 | 15.0 | 15.0 | 5.0/7.5/15.0 | 0.6 | 100 | 2,000 | – | – | 400 | 400 | – |
| 250MPS684□** | 0.68 | 18.0 | 7.5 | 16.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,500 | – | – | 400 | 400 | – |
| 250MPS824□** | 0.82 | 18.0 | 8.0 | 16.5 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,500 | – | – | 400 | 300 | – |
| 250MPS105□** | 1.0 | 18.0 | 9.0 | 17.5 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,000 | – | – | 400 | 300 | – |
| 250MPS125□** | 1.2 | 18.0 | 9.5 | 18.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,000 | – | – | 400 | 300 | – |
| 250MPS155□** | 1.5 | 23.0 | 8.5 | 18.5 | 20.0 | 20.0 | 0.8 | 200 | 1,000 | – | – | – | 300 | – |
| 250MPS185□** | 1.8 | 23.0 | 9.5 | 19.5 | 20.0 | 20.0 | 0.8 | 200 | 800 | – | – | – | 300 | – |
| 250MPS225□** | 2.2 | 23.0 | 10.5 | 20.5 | 20.0 | 20.0 | 0.8 | 200 | 800 | – | – | – | 300 | – |
| 250MPS275□** | 2.7 | 23.0 | 12.0 | 22.0 | 20.0 | 20.0 | 0.8 | 100 | 500 | – | – | – | – | – |
| 250MPS335□** | 3.3 | 23.0 | 13.0 | 23.5 | 20.0 | 20.0 | 1.0 | 100 | 500 | – | – | – | – | – |
| 250MPS395□** | 3.9 | 23.0 | 14.5 | 24.5 | 20.0 | 20.0 | 1.0 | 100 | 500 | – | – | – | – | – |
| 250MPS475□** | 4.7 | 23.0 | 16.0 | 26.0 | 20.0 | 20.0 | 1.0 | 100 | 400 | – | – | – | – | – |

□ : Tolerance (H: ±3%, J: ±5%, K: ±10%) ** : Suffix

### ◆RATED VOLTAGE : 450VDC

| Part No. | cap(μF) | Dimensions (mm) | | | | | | Typical Packaging Quantity (pcs) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Long Lead type | | Taping Ammo pack type - style | | | | |
| | | A | B | C | F ± 1.0 | LS ± 0.5 | d | Bag | Carton | A<br>TC | B, D<br>TX, TH | C<br>TL, TJ | E<br>TN | S<br>TS |
| 450MPS103□** | 0.01 | 13.0 | 6.0 | 9.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 450MPS123□** | 0.012 | 13.0 | 6.5 | 10.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 450MPS153□** | 0.015 | 13.0 | 7.0 | 10.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 3,000 | – | 500 | 400 | – | 400 |
| 450MPS183□** | 0.018 | 13.0 | 7.5 | 11.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 450MPS223□** | 0.022 | 13.0 | 8.0 | 11.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 450MPS273□** | 0.027 | 13.0 | 8.0 | 13.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 2,000 | – | 500 | 400 | – | 400 |
| 450MPS333□** | 0.033 | 13.0 | 5.5 | 10.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 450MPS393□** | 0.039 | 13.0 | 5.5 | 11.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 450MPS473□** | 0.047 | 13.0 | 6.0 | 11.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 3,000 | – | 500 | 400 | – | 400 |
| 450MPS563□** | 0.056 | 13.0 | 6.5 | 12.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 450MPS683□** | 0.068 | 13.0 | 7.0 | 12.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 450MPS823□** | 0.082 | 13.0 | 7.5 | 13.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 2,000 | – | 500 | 400 | – | 400 |
| 450MPS104□** | 0.1 | 18.0 | 6.5 | 12.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 100 | 2,000 | – | – | 400 | 400 | – |
| 450MPS124□** | 0.12 | 18.0 | 7.0 | 12.5 | 15.0 | 5.0/7.5/15.0 | 0.8 | 100 | 2,000 | – | – | 400 | 400 | – |
| 450MPS154□** | 0.15 | 18.0 | 7.0 | 14.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 100 | 2,000 | – | – | 400 | 400 | – |
| 450MPS184□** | 0.18 | 18.0 | 8.0 | 14.5 | 15.0 | 5.0/7.5/15.0 | 0.8 | 100 | 1,500 | – | – | 400 | 400 | – |
| 450MPS224□** | 0.22 | 18.0 | 8.5 | 15.5 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,500 | – | – | 400 | 300 | – |
| 450MPS274□** | 0.27 | 18.0 | 9.5 | 16.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,000 | – | – | 300 | 300 | – |
| 450MPS334□** | 0.33 | 18.0 | 9.5 | 18.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,000 | – | – | 300 | 300 | – |
| 450MPS394□** | 0.39 | 18.0 | 10.5 | 19.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 200 | 1,000 | – | – | 300 | 300 | – |
| 450MPS474□** | 0.47 | 18.0 | 12.0 | 20.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 200 | 800 | – | – | 300 | 200 | – |
| 450MPS564□** | 0.56 | 23.0 | 11.0 | 19.0 | 20.0 | 20.0 | 0.8 | 200 | 800 | – | – | – | – | – |
| 450MPS684□** | 0.68 | 23.0 | 11.5 | 21.5 | 20.0 | 20.0 | 0.8 | 100 | 500 | – | – | – | – | – |
| 450MPS824□** | 0.82 | 23.0 | 12.5 | 22.5 | 20.0 | 20.0 | 0.8 | 100 | 500 | – | – | – | – | – |
| 450MPS105□** | 1.0 | 23.0 | 14.0 | 24.0 | 20.0 | 20.0 | 0.8 | 100 | 500 | – | – | – | – | – |
| 450MPS125□** | 1.2 | 23.0 | 15.0 | 25.5 | 20.0 | 20.0 | 1.0 | 100 | 500 | – | – | – | – | – |
| 450MPS155□** | 1.5 | 23.0 | 17.0 | 27.0 | 20.0 | 20.0 | 1.0 | 50 | 400 | – | – | – | – | – |
| 450MPS185□** | 1.8 | 23.0 | 18.5 | 29.0 | 20.0 | 20.0 | 1.0 | 50 | 400 | – | – | – | – | – |
| 450MPS225□** | 2.2 | 23.0 | 21.0 | 31.0 | 20.0 | 20.0 | 1.0 | 50 | 300 | – | – | – | – | – |

□ : Tolerance (H: ±3%, J: ±5%, K: ±10%) ** : Suffix

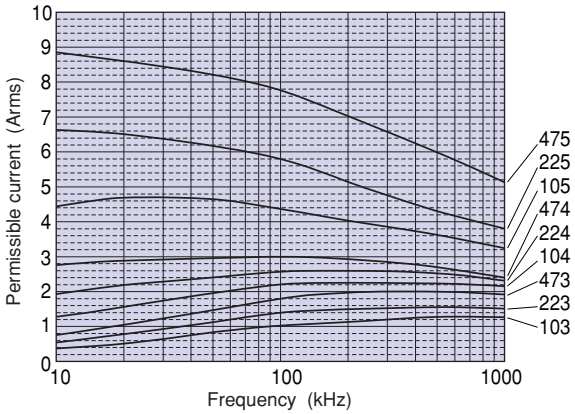
## ◆RATED VOLTAGE : 630VDC

| Part No. | cap(μF) | Dimensions (mm) | | | | | | Typical Packaging Quantity (pcs) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Long Lead type | | Taping Ammo pack type - style | | | | |
| | | A | B | C | F ±1.0 | LS±0.5 | d | Bag | Carton | A<br>TC | B, D<br>TX, TH | C<br>TL, TJ | E<br>TN | S<br>TS |
| 630MPS103□** | 0.01 | 13.0 | 6.0 | 9.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 630MPS123□** | 0.012 | 13.0 | 6.5 | 10.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 4,000 | – | 500 | 400 | – | 400 |
| 630MPS153□** | 0.015 | 13.0 | 7.0 | 10.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 200 | 3,000 | – | 500 | 400 | – | 400 |
| 630MPS183□** | 0.018 | 13.0 | 7.5 | 11.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 630MPS223□** | 0.022 | 13.0 | 8.0 | 11.5 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 3,000 | – | 500 | 400 | – | 400 |
| 630MPS273□** | 0.027 | 13.0 | 8.0 | 13.0 | 10.0 | 5.0/7.5/10.0 | 0.6 | 100 | 2,000 | – | 500 | 400 | – | 400 |
| 630MPS333□** | 0.033 | 13.0 | 8.5 | 14.0 | 10.0 | 5.0/7.5/10.0 | 0.8 | 100 | 2,000 | – | 500 | 400 | – | 400 |
| 630MPS393□** | 0.039 | 13.0 | 9.0 | 14.5 | 10.0 | 5.0/7.5/10.0 | 0.8 | 100 | 2,000 | – | 500 | 400 | – | 400 |
| 630MPS473□** | 0.047 | 18.0 | 6.5 | 12.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 100 | 2,000 | – | – | 400 | 400 | – |
| 630MPS563□** | 0.056 | 18.0 | 7.0 | 12.5 | 15.0 | 5.0/7.5/15.0 | 0.8 | 100 | 2,000 | – | – | 400 | 400 | – |
| 630MPS683□** | 0.068 | 18.0 | 7.5 | 13.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 100 | 2,000 | – | – | 400 | 400 | – |
| 630MPS823□** | 0.082 | 18.0 | 8.0 | 13.5 | 15.0 | 5.0/7.5/15.0 | 0.8 | 100 | 1,500 | – | – | 400 | 400 | – |
| 630MPS104□** | 0.1 | 18.0 | 9.0 | 14.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,500 | – | – | 400 | 300 | – |
| 630MPS124□** | 0.12 | 18.0 | 9.5 | 15.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,000 | – | – | 300 | 300 | – |
| 630MPS154□** | 0.15 | 18.0 | 10.5 | 16.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 50 | 1,000 | – | – | 300 | 300 | – |
| 630MPS184□** | 0.18 | 18.0 | 11.0 | 18.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 200 | 1,000 | – | – | 300 | – | – |
| 630MPS224□** | 0.22 | 18.0 | 12.0 | 19.0 | 15.0 | 5.0/7.5/15.0 | 0.8 | 200 | 800 | – | – | 300 | – | – |
| 630MPS274□** | 0.27 | 23.0 | 11.0 | 18.0 | 20.0 | 20.0 | 0.8 | 200 | 800 | – | – | – | – | – |
| 630MPS334□** | 0.33 | 23.0 | 11.5 | 20.0 | 20.0 | 20.0 | 0.8 | 100 | 500 | – | – | – | – | – |
| 630MPS394□** | 0.39 | 23.0 | 12.5 | 21.0 | 20.0 | 20.0 | 0.8 | 100 | 500 | – | – | – | – | – |
| 630MPS474□** | 0.47 | 23.0 | 13.0 | 23.5 | 20.0 | 20.0 | 0.8 | 100 | 500 | – | – | – | – | – |
| 630MPS564□** | 0.56 | 23.0 | 14.5 | 24.5 | 20.0 | 20.0 | 1.0 | 100 | 500 | – | – | – | – | – |
| 630MPS684□** | 0.68 | 23.0 | 16.0 | 26.0 | 20.0 | 20.0 | 1.0 | 50 | 400 | – | – | – | – | – |
| 630MPS824□** | 0.82 | 23.0 | 17.5 | 27.5 | 20.0 | 20.0 | 1.0 | 50 | 400 | – | – | – | – | – |
| 630MPS105□** | 1.0 | 23.0 | 19.5 | 29.5 | 20.0 | 20.0 | 1.0 | 50 | 300 | – | – | – | – | – |

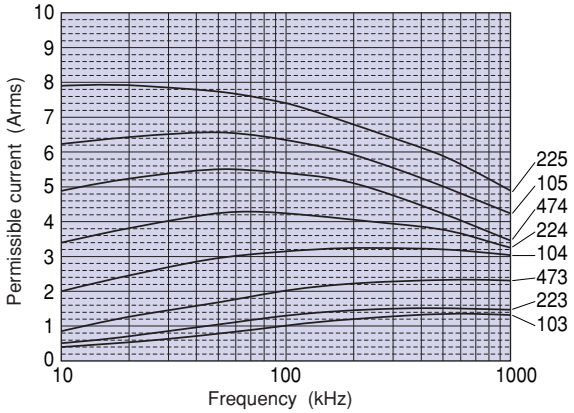
□ :Tolerance (H: ±3%, J: ±5%, K: ±10%) ** : Suffix

## ◆PERMISSIBLE CURRENT FOR FREQUENCY

250MPS




450MPS




630MPS

