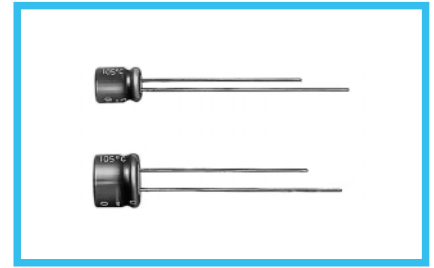
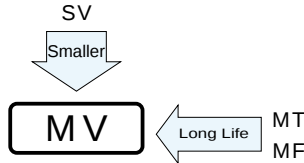


**MV** 5mmL, Long Life Assurance  
series



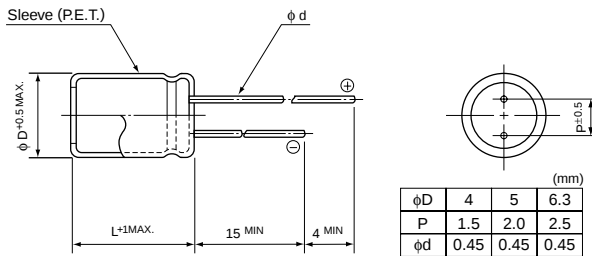
- Extended load life of 5000 hours at +105°C, with 5mm height.
- Compliant to the RoHS directive (2011/65/EU).



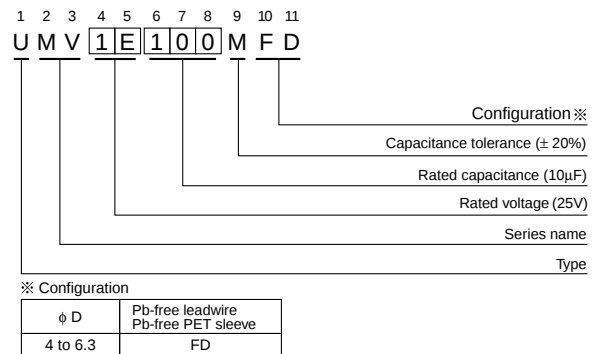
## Specifications

| Item                          | Performance Characteristics                                                                                                                                                                                                             |                 |      |      |      |      |      |      |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------|------|------|------|------|------|
| Category Temperature Range    | -40 to +105°C                                                                                                                                                                                                                           |                 |      |      |      |      |      |      |
| Rated Voltage Range           | 4 to 50V                                                                                                                                                                                                                                |                 |      |      |      |      |      |      |
| Rated Capacitance Range       | 0.1 to 100μF                                                                                                                                                                                                                            |                 |      |      |      |      |      |      |
| Capacitance Tolerance         | ±20% at 120Hz, 20°C                                                                                                                                                                                                                     |                 |      |      |      |      |      |      |
| Leakage Current               | After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.                                                                                                                 |                 |      |      |      |      |      |      |
| Tangent of loss angle (tan δ) | Measurement frequency : 120Hz at 20°C                                                                                                                                                                                                   |                 |      |      |      |      |      |      |
|                               | Rated voltage (V)                                                                                                                                                                                                                       | 4               | 6.3  | 10   | 16   | 25   | 35   | 50   |
|                               | tan δ (MAX.)                                                                                                                                                                                                                            | 0.37            | 0.28 | 0.24 | 0.20 | 0.16 | 0.13 | 0.12 |
| Stability at Low Temperature  | Measurement frequency : 120Hz                                                                                                                                                                                                           |                 |      |      |      |      |      |      |
|                               | Rated voltage (V)                                                                                                                                                                                                                       | 4               | 6.3  | 10   | 16   | 25   | 35   | 50   |
|                               | Impedance ratio<br>ZT / Z20 (MAX.)                                                                                                                                                                                                      | Z-25°C / Z+20°C | 8    | 4    | 3    | 2    | 2    | 2    |
|                               |                                                                                                                                                                                                                                         | Z-40°C / Z+20°C | 14   | 10   | 7    | 5    | 3    | 3    |
| Endurance                     | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 5000 hours at 105°C.                                                                                    |                 |      |      |      |      |      |      |
|                               |                                                                                                                                                                                                                                         |                 |      |      |      |      |      |      |
|                               |                                                                                                                                                                                                                                         |                 |      |      |      |      |      |      |
| Shelf Life                    | After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above. |                 |      |      |      |      |      |      |
| Marking                       | Printed with silver color letter on dark brown sleeve.                                                                                                                                                                                  |                 |      |      |      |      |      |      |

## Radial Lead Type



## Type numbering system (Example : 25V 10μF)



## Dimensions

| Cap.(μF) | V | 4    |       | 6.3 |       | 10 |       | 16  |       | 25  |       | 35  |       | 50                     |              |
|----------|---|------|-------|-----|-------|----|-------|-----|-------|-----|-------|-----|-------|------------------------|--------------|
|          |   | Code | 0G    | 0J  | 1A    | 1C | 1E    | 1V  | 1H    | 1I  | 1J    | 1K  | 1L    | 1M                     | 1N           |
| 0.1      |   | 0R1  |       |     |       |    |       |     |       |     |       |     |       | 4×5                    | 1.0          |
| 0.22     |   | R22  |       |     |       |    |       |     |       |     |       |     |       | 4×5                    | 2.6          |
| 0.33     |   | R33  |       |     |       |    |       |     |       |     |       |     |       | 4×5                    | 3.2          |
| 0.47     |   | R47  |       |     |       |    |       |     |       |     |       |     |       | 4×5                    | 3.8          |
| 1        |   | 010  |       |     |       |    |       |     |       |     |       |     |       | 4×5                    | 6.2          |
| 2.2      |   | 2R2  |       |     |       |    |       |     |       |     |       |     |       | 4×5                    | 11           |
| 3.3      |   | 3R3  |       |     |       |    |       |     |       |     |       |     |       | 4×5                    | 14           |
| 4.7      |   | 4R7  |       |     |       |    |       |     |       | 4×5 | 13    | 4×5 | 15    | 5×5                    | 19           |
| 10       |   | 100  |       |     |       |    |       | 4×5 | 18    | 5×5 | 23    | 5×5 | 25    | 6.3×5                  | 30           |
| 22       |   | 220  | 4×5   | 22  | 4×5   | 22 | 5×5   | 27  | 5×5   | 30  | 6.3×5 | 38  | 6.3×5 | 42                     |              |
| 33       |   | 330  | 5×5   | 30  | 5×5   | 30 | 5×5   | 35  | 6.3×5 | 40  | 6.3×5 | 48  |       |                        |              |
| 47       |   | 470  | 5×5   | 36  | 5×5   | 36 | 6.3×5 | 46  | 6.3×5 | 50  |       |     |       |                        |              |
| 100      |   | 101  | 6.3×5 | 60  | 6.3×5 | 60 |       |     |       |     |       |     |       | Case size<br>φD×L (mm) | Rated ripple |

Rated ripple current (mA rms) at 105°C 120Hz

## Frequency coefficient of rated ripple current

| Frequency   | 50 Hz | 120 Hz | 300 Hz | 1 kHz | 10 kHz or more |
|-------------|-------|--------|--------|-------|----------------|
| Coefficient | 0.70  | 1.00   | 1.17   | 1.36  | 1.50           |

Please refer to page 20, 21, 22 about the formed or taped product spec.  
Please refer to page 4 for the minimum order quantity.

CAT.8100C