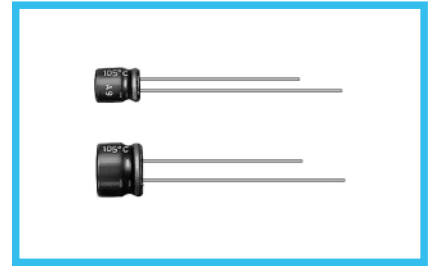


**MF** 5mmL, Low Impedance  
series



- Low impedance over wide temperature range of  $-55$  to  $+105^{\circ}\text{C}$ , with 5mm height.
- Suited for DC-DC converters where smaller case size and lower impedance are required.
- Compliant to the RoHS directive (2011/65/EU).

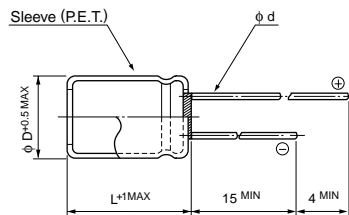
MF ← Low Impedance MT



## Specifications

Item	Performance Characteristics					
Category Temperature Range	$-55$ to $+105^{\circ}\text{C}$					
Rated Voltage Range	6.3 to 35V					
Rated Capacitance Range	1 to $100\mu\text{F}$					
Rated Capacitance Tolerance	$\pm 20\%$ at 120Hz, $20^{\circ}\text{C}$					
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than $0.01\text{CV}$ or $3(\mu\text{A})$ , whichever is greater.					
Tangent of loss angle ( $\tan \delta$ )	Measurement frequency : 120Hz at $20^{\circ}\text{C}$					
	Rated voltage (V)	6.3	10	16	25	35
	$\tan \delta$ (MAX.)	0.22	0.20	0.18	0.14	0.12
Stability at Low Temperature	Measurement frequency : 120Hz					
	Rated voltage (V)	6.3	10	16	25	35
	Impedance ratio $ZT / Z20$ (MAX.)	$Z-25^{\circ}\text{C} / Z+20^{\circ}\text{C}$	2	2	2	2
		$Z-55^{\circ}\text{C} / Z+20^{\circ}\text{C}$	4	4	3	3
Endurance	The specifications listed at right shall be met when the capacitors are restored to $20^{\circ}\text{C}$ after the rated voltage is applied for 1000 hours at $105^{\circ}\text{C}$ .					
Shelf Life	After storing the capacitors under no load at $105^{\circ}\text{C}$ for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at $20^{\circ}\text{C}$ , they shall meet the specified values for the endurance characteristics listed above.					
Marking	Printed with white color letter on dark brown sleeve.					

## Radial Lead Type



φD	4	5	6.3
P	1.5	2.0	2.5
φd	0.45	0.45	0.45

## Type numbering system (Example : 25V $10\mu\text{F}$ )

1	2	3	4	5	6	7	8	9	10	11
U	M	F	1	E	1	0	0	M	D	D
Configuration ※										
Capacitance tolerance ( $\pm 20\%$ )										
Rated capacitance ( $10\mu\text{F}$ )										
Rated voltage (25V)										
Series name										
Type										

※ Configuration

φD	Pb-free leadwire Pb-free PET sleeve
4 to 6.3	DD

## Dimensions

V		6.3			10			16			25			35		
Cap. ( $\mu\text{F}$ )	Code	0J			1A			1C			1E			1V		
1	010													4×5	5.0	50
1.5	1R5													4×5	5.0	50
2.2	2R2													4×5	5.0	50
3.3	3R3													4×5	5.0	50
4.7	4R7										4×5	5.0	50	4×5	5.0	50
6.8	6R8										4×5	5.0	50	5×5	2.6	80
10	100							4×5	5.0	50	5×5	2.6	80	5×5	2.6	80
15	150							5×5	2.6	80	6.3×5	1.3	115	6.3×5	1.3	115
22	220	4×5	5.0	50	5×5	2.6	80	5×5	2.6	80	6.3×5	1.3	115	6.3×5	1.3	115
33	330	5×5	2.6	80	5×5	2.6	80	6.3×5	1.3	115	6.3×5	1.3	115			
47	470	5×5	2.6	80	6.3×5	1.3	115	6.3×5	1.3	115						
68	680	6.3×5	1.3	115												
100	101	6.3×5	1.3	115												

Max. Impedance ( $\Omega$ ) at  $20^{\circ}\text{C}$  100kHz  
Rated ripple current (mA rms) at  $105^{\circ}\text{C}$  100kHz

## Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.35	0.50	0.64	0.83	1.00

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