

# MCEEL Series

## 105°C Surface Mount Capacitors



### Features:

- Miniature surface mount aluminium electrolytic.
- Designed for surface mounting on high density circuit board.
- Supplied with carrier taping for automatic mounting machine.
- Operating life of 2000 hours at 105°C.

### Specifications

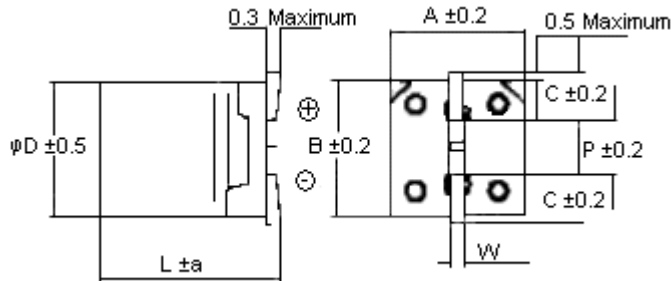
Item	Characteristics						
Operating temperature range	-40°C to +105°C						
Working voltage range	6.3 to 50V						
Capacitance range	1 to 220µF						
Capacitance tolerance	±20% (120Hz, 20°C)						
Leakage current maximum	$I \leq 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes)						
Dissipation Factor at 120Hz, 20°C	Working voltage	6.3	10	16	25	35	50
	tanδ (maximum)	0.35	0.30	0.25	0.18	0.16	0.14
Low temperature characteristics (Impedance ratio at 120Hz)	Working voltage	6.3	10	16	25	35	50
	Z -25°C/Z +20°C	4	3	2			
	Z -40°C/Z +20°C	10	8	6	4		
Load life (After application of the rated voltage for 2000 hours at 105°C)	Capacitance change	Within ±25% of initial value					
	tanδ	Less than 250% of initial specified value					
	Leakage current	Less than specified value					
Shelf life (at 105°C)	After 1000 hours no load test, leakage current, capacitance change and tanδ are as same as load life value						
Soldering heat resistance	Place terminal side surface on 250°C hot plate for 30 seconds allow test samples to be cooled down to room temperature						
	Capacitance change	Within ±10% of initial value					
	tanδ	Less than initial specified value					
	Leakage current	Less than initial specified value					

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### Diagram of Dimensions



Case Size	$\varnothing D \pm 0.5$ maximum	$L \pm a$	$A \pm 0.2$	$B \pm 0.2$	$C \pm 0.2$	W	$P \pm 0.2$	Reel Quantity
B	4.0	5.2±0.3	4.3	5.3	1.8	0.5	1.0	2000
D	5.0		2.1		1.4		1000	
E	6.3		2.4		2.2			
H	8.0	10.5±0.5	8.3	10.3	2.9	1.4	3.2	500
J	10.0		3.2		4.6			

Dimensions : Millimetres

### Dimensions and maximum permissible ripple current mA(rms) at 120Hz, 105°C

Power Factor at 120Hz, 20°C = 0.35W

W.V µF	6.3		10		16		25		35		50	
		Ripple Current		Ripple Current		Ripple Current		Ripple Current		Ripple Current		Ripple Current
1	-	-	-	-	-	-	-	-	-	-	4 x 5.2	7
4.7	-	-	-	-	-	-	-	-	4 x 5.2	14	5 x 5.2	19
10	-	-	-	-	4 x 5.2	16	-	-	-	-	6.3 x 5.2	32
22	-	-	-	-	-	-	-	-	6.3 x 5.2	40	-	-
47	-	-	-	-	6.3 x 5.2	54	-	-	-	-	8 x 10.5	150
100	6.3 x 5.2	66	-	-	-	-	8 x 10.5	150	-	-	10 x 10.5	220
220	-	-	8 x 10.5	175	-	-	-	-	-	-	-	-

Dimensions : Millimetres



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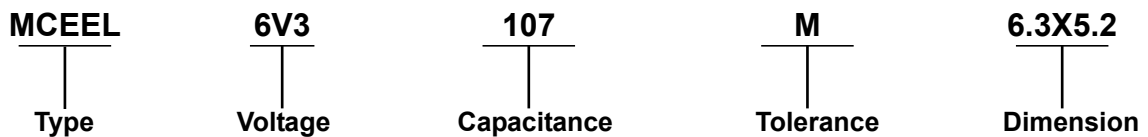
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### Specification Table

Volt d.c	Capacitance (µF)	Ripple (mA) at 120Hz, 105°C	Power Factor at 120Hz, 20°C	Case Size	Part Number
6.3	100	66	0.35	E	MCEEL6V3107M6.3X5.2
10	220	175		H	MCEEL10V227M8X10.5
16	10	16		B	MCEEL16V106M4X5.2
	47	54		E	MCEEL16V476M6.3X5.2
25	100	150		H	MCEEL25V107M8X10.5
35	4.7	14		B	MCEEL35V475M4X5.2
	22	40		E	MCEEL35V226M6.3X5.2
50	1	7		B	MCEEL50V105M4X5.2
	4.7	19		D	MCEEL50V475M5X5.2
	10	32		E	MCEEL50V106M6.3X5.2
	47	150		H	MCEEL50V476M8X10.5
	100	220		J	MCEEL50V107M10X10.5

### Part Number Explanation:



**Voltage** : 6V3 (6V3 = 6.3V), 10, 16, 25, 35 and 50V.

**Capacitance** : First two digits are the base value and last digit represents the conversion factor.

475 = 4,700,000 = 4.7µF.

226 = 22,000,000 = 22µF.

107 = 100,000,000 = 100µF.

**Tolerance** : M = ±20%.

**Dimension** : Diameter x Length.

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### Notes:

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