

# SL Series - Surface Mount

## Extended Life 85°C Capacitor



### Features:

- Designed for surface mounting on high density PC board.
- Supplied with carrier taping for automatic mounting machine.
- Guarantees 2000 hours at 85°C.

### Electrical Specifications

Item	Characteristics							
Operating Temperature Range	-40°C to +85°C							
Working Voltage Range	4 to 100V							
Capacitance Range	0.1 to 1500µF							
Capacitance Tolerance	±20% (120Hz, 20°C)							
Leakage Current Maximum	≤0.01CV or 3 (µA) whichever is greater (after two minutes)							
Dissipation Factor at 120Hz, 20°C (tan δ maximum)	<b>Working Voltage</b>	<b>6.3</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>	
	φ3	0.30	-	0.19	0.16	0.14		
	φ4 - 6.3	0.26	0.20	0.16	0.14	0.12		
	φ8 - 10	0.30	0.24	0.20	0.16	0.14	0.12	
Low Temperature Characteristics (Impedance Ratio at 120Hz)	<b>Working Voltage</b>	<b>6.3</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>	
	Z -25°C/Z +20°C	4	3	2				
	Z -40°C/Z +20°C	8		4		3		
Load Life (After Application of the Rated Voltage for 2000 Hours at 85°C)	Capacitance Change	Within ±25% of initial value.						
	tanδ	Less than 200% of initial specified value.						
	Leakage Current	Less than specified value.						
Shelf Life (at 85°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 allows 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.						

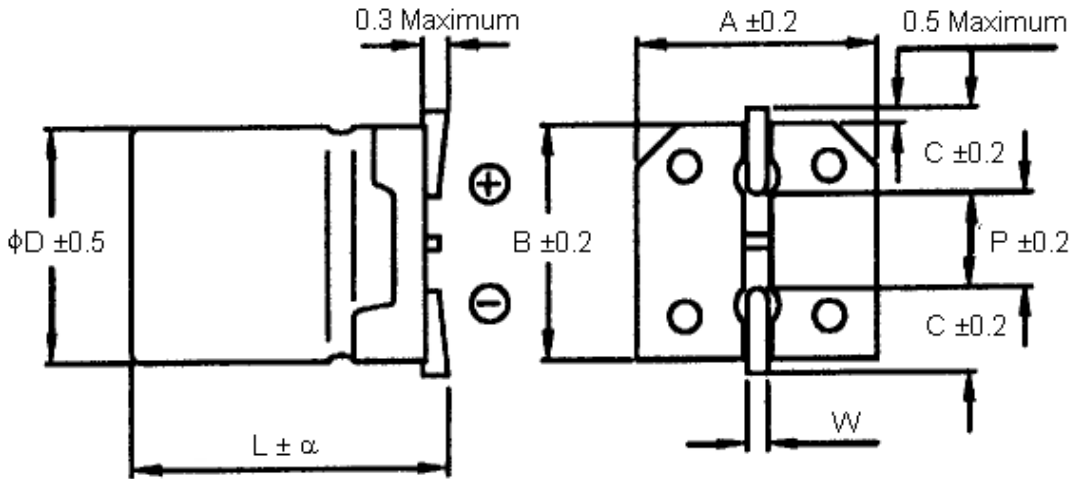


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### Diagram of Dimensions:



$\phi D \pm 0.5$ maximum	L	$\alpha$	A $\pm 0.2$	B $\pm 0.2$	C $\pm 0.2$	W	P $\pm 0.2$
3	5.4	0.3	3.3	3.3	1.5	0.45 - 0.75	0.6
4	5.2		4.3	4.3	1.8	0.5 - 0.8	1.0
	6.0		5.3	5.3	2.1		1.4
5	5.2		6.6	6.6	2.4		2.2
6.3	6.0	0.5	8.3	8.3	2.9	0.7 - 1.0	3.2
	7.7		10.3	10.3	3.2		4.6
8	10.5						
10							

Dimensions : Millimetres

### DIMENSIONS AND MAXIMUM PERMISSIBLE RIPPLE CURRENT mA (rms) at 120Hz, 85°C

Power Factor (W) at 120Hz, 20°C = 0.35

WV μF	6.3		10.0		16.0		25.0		35.0		50.0	
	1.0	-	-	-	-	-	-	-	-	-	-	4.0 x 5.2
4.7	-	-	-	-	-	-	-	-	4.0 x 5.2	18.0	5.0 x 5.2	20.0
10.0	-	-	-	-	4.0 x 5.2	25.0	-	-	-	-	6.3 x 5.2	33.0
22.0	-	-	-	-	-	-	-	-	6.3 x 5.2	46.0	-	-
47.0	-	-	-	-	6.3 x 5.2	58.0	-	-	-	-	6.3 x 7.7	90.0
100.0	6.3 x 5.2	70.0	-	-	-	-	6.3 x 7.7	130.0	-	-	8.0 x 10.5	200.0
220.0	-	-	6.3 x 7.7	150.0	-	-	-	-	-	-	-	-

Dimensions : Millimetres



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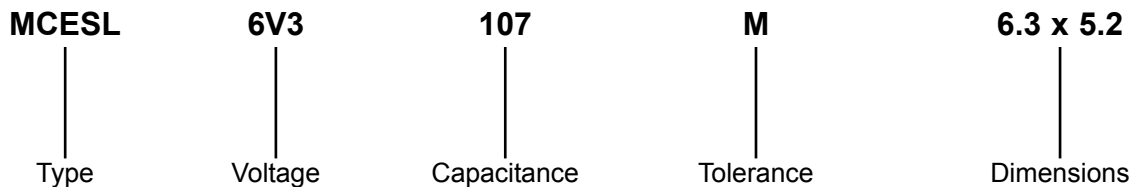
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### Specification Table

Capacitance (μF)	Voltage (V dc)	Ripple Current (mA) at 20Hz, 85°C	Power Factor at 120Hz, 20°C	Case Size	Reel Quantity	Part Number
100	6.3	70	0.35	E	1000	MCESL6V3107M6.3X5.2
220	10	150		G	900	MCESL10V227M6.3X7.7
10	16	25		B	2000	MCESL16V106M4X5.2
47		58		E	1000	MCESL16V476M6.3X5.2
100	25	130		G	900	MCESL25V107M6.3X7.7
4.7	35	18		B	2000	MCESL35V475M4X5.2
22		46		E	1000	MCESL35V226M6.3X5.2
1	50	8.4		B	2000	MCESL50V105M4X5.2
4.7		20		D	1000	MCESL50V475M5X5.2
10		33		E	1000	MCESL50V106M6.3X5.2
47		60		G	900	MCESL50V476M6.3X7.7
100		200		H	500	MCESL50V107M8X10.5

### Part Number Explanation:



**Voltage** : 6V3, 10, 16, 25, 35 and 50V.

In 6V3, V represents the decimal point (6V3 = 6.3V).

**Capacitance** : Last digit 5 represents decimal point in base value,

In code 475, Capacitance is 4.7, similarly for 105, capacitance value is 1.0.

Last digit 6 represents no change in base value,

In code 226, Capacitance is 22, similarly for 476, capacitance value is 47.

Last digit 7 represents one zero is added to the base value,

In code 107, Capacitance is 100, similarly for 227, capacitance value is 220.

**Tolerance** : M = ±20%.

**Dimensions** : Diameter x Height.



### Notes:

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