

## FEATURES

- Directly mountable on printed circuit board without holders.
- Smaller low profile size than ordinary capacitors.
- Terminal spacing fixed at 10mm for PC board plug in.
- Aluminum case designed explosion-proof vent.

## PART NUMBERING

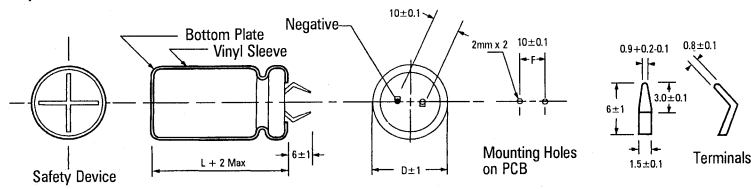
Part Number Example: LC-050/103M30X41F							
LC	-	050	/	103	M	30X41	F
Type		Rated DC Voltage		Capacitance Code (μF)*	Tolerance Code	Size	RoHs Compliant
* Capacitance Code: First two digits represent significant figures, third digit represents multiplier (number of zeros).							

## SPECIFICATIONS

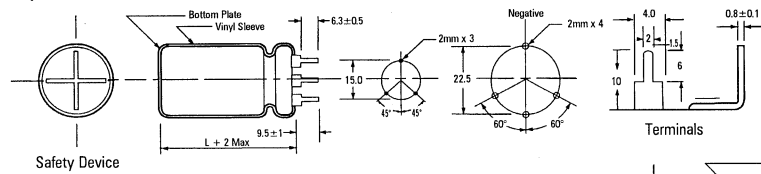
Performance Characteristics							
Operating Temperature Range	-40°C ~ +85°C.		-25°C ~ +85°C.				
Temperature Characteristics (120Hz)	Impedance Ratio						
	Z (-25°C) / Z (+20°C)			3 maximum			
	Z (-40°C) / Z (+20°C)			12 maximum			
Voltage Range	10VDC ~ 100VDC.			160VDC ~ 450VDC.			
Capacitance Range	470μF ~ 68000μF.			47μF ~ 2700μF.			
Capacitance Tolerance (20°C, 120Hz)	±20%.						
Maximum Dissipation Factor % (20°C, 120Hz)	Less than the value under table.						
	μF	Rated Voltage (WVDC)					
		10 ~ 16	25 ~ 35	50 ~ 63	80 ~ 100	160 ~ 250	315 ~ 450
	47 ~ 390				15	20	
	470 ~ 3900	25	20	20	20	15	20
	4700 ~ 8200	35	30	30	25		
	10000 ~ 22000	40	35	30			
27000 ~ 47000	45	40	35				
56000 ~ 68000	50	45					
Maximum Leakage Current (20°C) (after 5 minutes)	0.02CV.						
Load Life Test	Test Conditions						
	Duration Time		2000 hours.				
	Ambient Temperature		85°C.				
	Applied Voltage		Rated DC working voltage.				
	After test requirements @ 20°C						
	Capacitance Change		Within ±20% of the initial measured value.				
	Dissipation Factor		200% of the initial specified value.				
Leakage Current		The initial specified value.					
Shelf Life	Test Conditions						
	Duration Time		500 hours.				
	Ambient Temperature		85°C.				
	Applied Voltage		None.				
	After test requirements @ 20°C: Same limits as load life.						
	Pre-treatment for measurements shall be conducted after applications of DC working voltage for 30 minutes.						

**DIAGRAM OF DIMENSIONS (CASE VENT)(UNIT: mm)**

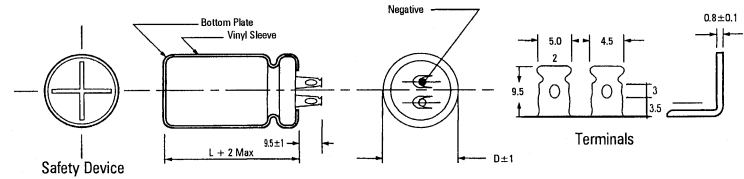
Symbol W: PCB Terminal (Snap-In)



Symbol G: PCB Terminal



Symbol V:  
Lug Terminal



Frequency	Multiplying Factor		
	10V ~ 35V	50V ~ 100V	160V ~ 250V
60Hz	0.90	0.90	0.80
120Hz	1.00	1.00	1.00
1KHz	1.05	1.15	1.35
10KHz	1.10	1.20	1.45
100KHz	1.10	1.20	1.50

Ambient Temperature	Multiplying Factor
45°C & under	1.55
60°C	1.30
70°C	1.20
85°C	1.00

CASE SIZE AND RIPPLE CURRENT (UNIT A, rms, 120Hz @ 85°C)

WV DC	µF	Case Size ØD x L (mm)	Ir (A)	WV DC	µF	Case Size ØD x L (mm)	Ir (A)	WV DC	µF	Case Size ØD x L (mm)	Ir (A)	WV DC	µF	Case Size ØD x L (mm)	Ir (A)
10	4700	22 x 21	2.40	25	4700	22 x 26	2.64	50	1500	22 x 26	1.44	80	680	22 x 21	1.34
	6800	22 x 26	2.84		5600	22 x 31	2.78		2200	22 x 26	2.04		1000	22 x 26	1.62
	8200	22 x 26	2.90		6800	22 x 31	2.93		2700	22 x 31	2.30		1500	22 x 31	1.76
	10000	22 x 31	3.06			8200			22 x 31	3.05	3300			22 x 31	
		25 x 26			10000		25 x 26		3.43				4700	25 x 31	2.88
	12000	22 x 31	3.43			10000	22 x 36			3.43	5600			22 x 41	
		25 x 26			12000		25 x 36		3.84				6800	25 x 41	3.24
	15000	22 x 36	3.94			12000	30 x 31			4.39	8200			25 x 46	
		25 x 31			15000		22 x 41		4.80				10000	25 x 51	3.96
	18000	22 x 41	4.34			15000	30 x 36			5.40	12000			30 x 41	
		25 x 31			18000		22 x 41		5.97				15000	30 x 46	4.70
	22000	22 x 46	4.80			18000	22 x 51			6.24	18000			35 x 47	
		30 x 31			22000		25 x 46		7.10				22000	35 x 52	5.85
	27000	25 x 46	7.57			22000	30 x 41			7.60	27000			30 x 51	
		30 x 36			27000		25 x 51		8.33				33000	35 x 42	8.96
	33000	25 x 51	8.20			33000	35 x 47			10.5	39000			35 x 47	
		35 x 32			39000		30 x 46		8.33				47000	35 x 52	7.60
	39000	30 x 46	8.33			47000	35 x 52			7.60	56000			35 x 52	
		35 x 36			47000		30 x 51		8.96				68000	35 x 52	7.60
	47000	35 x 42	8.96			68000	35 x 52			7.60	22000			35 x 52	
56000		35 x 46		10.5	39000		35 x 47	7.10	18000			35 x 47	5.31	8200	35 x 52
68000	35 x 52	10.8	47000			35 x 52	7.60			22000	35 x 52	5.85			10000
16	4700			22 x 21	2.40	35		2200	22 x 26		2.18		63	1000	
	6800	22 x 26	2.84	3300	22 x 26		2.46	1500	22 x 26	1.68	680	22 x 26		1.53	
	8200	22 x 26	2.90	3900	22 x 31		2.64	2200	22 x 31	2.52	1000	22 x 31		1.62	
	10000	22 x 31	3.06		4700				22 x 31			2.68			2700
		25 x 26		10000			22 x 36	3.06	3300	25 x 31	3.12			1500	
	12000	22 x 31	3.43		10000		22 x 46			3.60		3900			22 x 41
		25 x 26		12000			25 x 41	4.08	4700		25 x 31			3.28	2200
	15000	22 x 36	3.94		12000		25 x 46			4.70	5600	25 x 41			
		25 x 31		15000			30 x 36	5.45	6800			25 x 46		4.32	3300
	18000	22 x 41	4.34		15000		30 x 41			5.78	8200	25 x 51			
		25 x 31		18000			35 x 32	6.36	10000			30 x 36		4.70	4700
	22000	22 x 46	4.80		18000		35 x 37			7.10	12000	30 x 41			
		30 x 31		22000			35 x 42	8.33	15000			30 x 46		5.31	6800
	27000	25 x 46	7.57		22000		35 x 47			8.96	18000	35 x 47			
		30 x 36		27000			35 x 52	10.5	22000			35 x 52		6.36	10000
	33000	25 x 51	8.20		27000		35 x 52			10.8	33000	35 x 52			
		35 x 32		33000			30 x 46	8.33	39000			35 x 52		7.60	15000
	39000	30 x 46	8.33		39000		35 x 52			7.60	47000	35 x 52			
		35 x 36		47000			30 x 51	8.96	56000			35 x 52		7.60	22000
	47000	35 x 42	8.96		56000		35 x 52			10.5	68000	35 x 52			
56000		35 x 46		10.5		68000	35 x 52	10.5	8200			35 x 52	5.85	4700	35 x 52
68000	35 x 52	10.8	8200		35 x 52		7.10			10000	35 x 52	5.85			12000

CASE SIZE AND RIPPLE CURRENT: (UNIT A, rms, 120Hz @ 85°C) [CONT.]

WV DC	µF	Case Size ØD x L (mm)	I <sub>r</sub> (A)	WV DC	µF	Case Size ØD x L (mm)	I <sub>r</sub> (A)	WV DC	µF	Case Size ØD x L (mm)	I <sub>r</sub> (A)	WV DC	µF	Case Size ØD x L (mm)	I <sub>r</sub> (A)			
160	180	22 x 21	1.12	200	680	22 x 46	2.98	250	680	35 x 32	3.11	400	47	22 x 21	1.12			
	270	22 x 26	1.35			25 x 36				30 x 46			68	22 x 26	1.35			
	330	22 x 26	1.44			30 x 31				35 x 37			82	22 x 26	1.44			
	390	22 x 31	1.62		820	25 x 46	3.26		1000	30 x 51	4.00		100	22 x 31	1.66	120	22 x 31	1.76
		25 x 26				35 x 27				35 x 42				25 x 26				
	470	22 x 31	1.76		1000	25 x 51	3.92		1200	22 x 36	0.99		150	22 x 36	2.03	150	22 x 36	2.03
		25 x 26				30 x 41		25 x 31		25 x 31								
	560	22 x 36	2.03			1200		35 x 32		4.25				180			30 x 26	
		25 x 31			30 x 46		25 x 36	25 x 36										
		30 x 26			35 x 37	30 x 27	30 x 26											
	680	22 x 41	2.36		1500	30 x 51	4.99	220	22 x 41	1.34	220		22 x 41	1.75	220	22 x 51	1.75	
		25 x 36				30 x 51			25 x 41				25 x 41					
		30 x 26				35 x 42			30 x 31				30 x 36					
	820	22 x 46	2.72		1800	35 x 47	5.84	2200	22 x 46	1.63	270		22 x 46	1.96	270	25 x 46	1.96	
		25 x 41				35 x 52			25 x 41				35 x 32					
		30 x 36		120		22 x 21			0.85			30 x 31	30 x 41			2.26		
	1000	25 x 46	3.13	150	22 x 26	0.98	180	22 x 26	1.80	330	25 x 51	2.50	330	30 x 41	2.50			
		30 x 36			220			22 x 31			1.36			30 x 36		35 x 37		
		35 x 32			270			22 x 31			1.60			35 x 32		35 x 42		
	1200	25 x 51	3.44	270	25 x 26	1.36	330	25 x 51	2.02	390	30 x 41	2.80	390	30 x 36	2.80			
		30 x 36			22 x 36			30 x 46			35 x 42							
		35 x 32			25 x 31			30 x 46			35 x 37							
	1500	30 x 46	3.96	330	30 x 26	1.87	390	30 x 46	2.22	470	30 x 46	3.16	470	35 x 52	3.16			
		35 x 37			22 x 41			30 x 51			30 x 51							
		30 x 51			25 x 31			35 x 37			35 x 42							
	1800	30 x 51	4.47	390	22 x 41	2.04	560	35 x 37	2.59	680	35 x 47	2.90	680	35 x 52	2.90			
		35 x 42			22 x 46			35 x 47			35 x 52							
2200		35 x 47			4.65			30 x 26			470			25 x 41		2.38	450	47
2700	35 x 52	4.76	30 x 26	560	25 x 36	2.81	100	25 x 46	1.03									
200	150	22 x 21	0.96	22 x 46	680		22 x 46	3.11		150	35 x 42	1.39						
	220	22 x 26	1.14	25 x 41	2.38		150		30 x 46	1.76								
	270	22 x 26	1.36	30 x 31	2.38	220	35 x 52		1.92									
330	22 x 31	1.89	560	25 x 46	2.81	680	25 x 46	3.11		330	35 x 47	2.44						
	25 x 26			30 x 36			390		35 x 42	470	35 x 47							
470	22 x 36	2.23	680	35 x 27	2.81	30 x 41	3.11	3.11	470	40 x 42	2.5							
	25 x 31			2.23					470	40 x 42								
	30 x 26			2.23					560	40 x 52	3.2							

