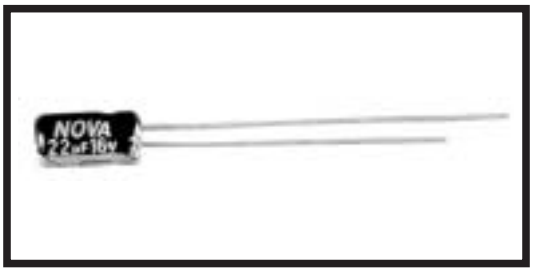
鋁電解電容器
ALUMINUM ELECTROLYTIC CAPACITOR(CD11X SS)

■ SS特性FEATURE

＊ 耐高温引綫引出超小形品
High temperature miniature size of radial lead type
＊ 適用于高密度裝配
Ideally suited for high-density assembly



■ 特性表SPECIFICATIONS

項目Item	主要特性Performance Characteristics
額定電壓範圍 Rated Voltage Range	6.3V.DC～50V.DC
使用温度範圍 Operating Temperature Range	-40℃～+105℃
標稱静電容量範圍 Nominal Capacitance Range	0.1μF～470μF
静電容量允許偏差 Capacitance Tolerance	±20%(M,+20℃,120Hz)
漏電流 Leakage Current	施加額定電壓2分鐘：I≤0.01CV 或 3μA(取較大者)20℃ After application of rated voltage for 2 minutes: I≤0.01CV or 3μA(Whichever is greater)20℃ C: 標稱静電容量（μF） C: Nominal Capacitance in μF; V:額定工作電壓 (V) V: Rated Working Voltage in V
損耗角正切值(tanδ) Dissipation Factor	額定工作電壓(V) Rated Working Voltage: 6.3 / 10 / 16 / 25 / 35 / 50 tanδ (MAX) (20℃,120Hz): 0.24 / 0.20 / 0.16 / 0.14 / 0.12 / 0.10
温度特性 Temperature Stability	額定工作電壓(V) Rated Working Voltage: 6.3 / 10 / 16 / 25 / 35 / 50 阻抗比(120Hz) Impedance Ratio(120Hz) (Z-25℃/z+20℃): 3 / 2 / 2 (z-40℃/z+20℃): 6 / 5 / 4 / 3
高温負荷特性 Load Life	在+105℃環境中施加工作電壓和最大允許紋波電流1000小時后，電容器的性能符合下表要求： After applying rated voltage for 1000 hours at +105℃, Capacitors meet the characteristics requirements measured at +20℃ listed below; 静電容量變化率: Capacitance Change: 初始測量值的±25%以内 Within ±25% of the initial measured value 漏電流: Leakage current: 不大于初始規定值 Less than the initial specified value 損耗角正切值: Tan δ 不大于初始規定值的200% Less than 200% the initial specified value
高温貯存特性 Shelf Life	在+105℃環境中無負荷放置500小時后，電容器的性能符合高温負荷特性中所列的規定值 After leaving capacitors under no load at +105℃ for 500 hours, capacitors meet the characteristics listed above

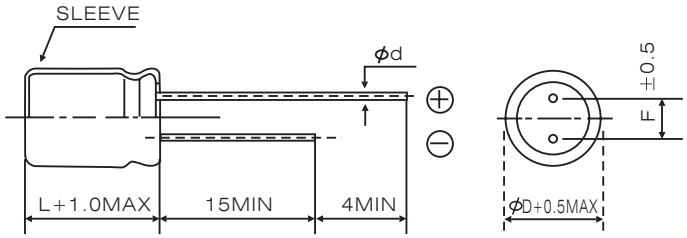
＊ 紋波倍乘因子MULTIPLIER FOR RIPPLE CURRENT
＊ 頻率因子Frequency coefficient

Freq(Hz) / Cap(μF)	50(60)	100(120)	500	1K	10K
0.1～47	0.80	1.00	1.20	1.30	1.50
100～220	0.80	1.00	1.10	1.15	1.20

＊ 温度因子TEMPERATURE COEFFICIENT

環境温度(℃) Ambient Temperature	+105	+85	+65
倍乘因子 Factor	1.0	1.7	2.1

- 外形圖及尺寸表
  CASE SIZE TABLE



φD	4	5	6.3	8
F±0.5	1.5	2.0	2.5	3.5
φd±0.1	0.45		0.5	
L	7			9

- SS 尺寸、額定電壓及標稱容量
  DIMENSIONS, RATED VOLTAGE AND CAPACITANCE

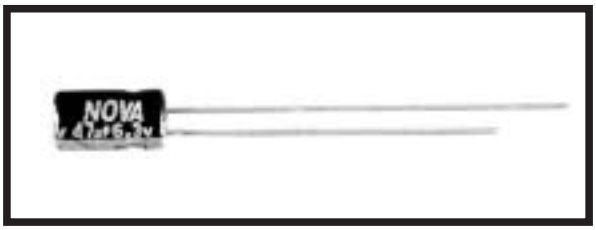
WV(v) / Cap(μF)	6.3(LA)		10(LB)		16(LC)		25(LD)		35(LE)		50(LF)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
0.1(R10)											4×7	1
0.15(R15)											4×7	1.5
0.22(R22)											4×7	2.5
0.33(R33)											4×7	3.5
0.47(R47)											4×7	5
0.68(R68)											4×7	7
1(1R0)											4×7	10
1.5(1R5)											4×7	13
2.2(2R2)											4×7	19
3.3(3R3)											4×7	24
4.7(4R7)					4×7	15	4×7	19	4×7	24	(4×7) 5×7	(27) 29
6.8(6R8)					4×7	21	4×7	25	4×7	29	5×7	39
10(100)					4×7	27	(4×7) 5×7	(27) 33	(4×7) 5×7	(33) 36	(5×7) 6.3×7	(41) 44
15(150)					4×7	33	5×7	40	5×7	43	6.3×7	53
22(220)	4×7	34	(4×7) 5×7	(34) 38	(4×7) 5×7	(38) 44	(5×7) 6.3×7	(44) 51	(5×7) 6.3×7	(51) 60	6.3×7	60
33(330)	(4×7) 5×7	(38) 42	(4×7) 5×7	(42) 47	(5×7) 6.3×7	(50) 60	(5×7) 6.3×7	(60) 65	6.3×7	72	8×9	76
47(470)	(4×7) 5×7	(44) 50	(5×7) 6.3×7	(50) 65	(5×7) 6.3×7	(65) 70	(6.3×7) 8×9	(70) 77	(6.3×7) 8×9	(84) 91	8×9	96
68(680)	5×7	57	(5×7) 6.3×7	(68) 77	6.3×7	80	(6.3×7) 8×9	(84) 90	8×9	116		
100(101)	(5×7) 6.3×7	(68) 77	(5×7) 6.3×7	(80) 87	(6.3×7) 8×9	(90) 107	8×9	114				
150(151)	6.3×7	80	6.3×7	94	8×9	114						
220(221)	(6.3×7) 8×9	(94) 110	(6.3×7) 8×9	(96) 110	8×9	140						
330(331)	8×9	150	8×9	150								
470(471)	8×9	180										

(1)外形尺寸　Case Size D × L(mm)
(2)最大允許紋波電流　Max allowable ripple current (mA r.m.s./105℃.120Hz)

鋁電解電容器
ALUMINUM ELECTROLYTIC CAPACITOR(CD11C SC)

■SC 特性 SC FEATURE

＊ 引綫引出超小形，+85℃通用型
Miniature size of radial lead type,+85℃ for general purpose.
＊ 適用于高密度裝配
Ideally suited for high-density assembly



■特性表 SPECIFICATIONS

項目Item	主要特性Performance Characteristics
額定電壓範圍 Rated Voltage Range	6.3V.DC ~ 63V.DC
使用温度範圍 Operating Temperature Range	-40℃ ~ +85℃
標稱静電容量範圍 Nominal Capacitance Range	0.1 μF ~ 470 μF
静電容量允許偏差 Capacitance Tolerance	±20%(M,+20℃,120Hz)
漏電流 Leakage Current	施加額定電壓2分鐘：I≤0.01CV 或 3μA(取較大者)20℃ After application of rated voltage for 2 minutes: I≤0.01CV or 3μA(Whichever is greater)20℃ C: 標稱静電容量 (μF) C: Nominal Capacitance in μF; V:額定工作電壓 (V) V: Rated Working Voltage in V
損耗角正切值(tanδ) Dissipation Factor	額定工作電壓(V) Rated Working Voltage: 6.3 / 10 / 16 / 25 / 35 / 50 / 63 tanδ (MAX) (20℃,120Hz): 0.24 / 0.20 / 0.16 / 0.15 / 0.13 / 0.10 / 0.10
温度特性 Temperature Stability	額定工作電壓(V) Rated Working Voltage: 6.3 / 10 / 16 / 25 / 35 / 50 / 63 阻抗比(120Hz) Impedance Ratio(120Hz) (Z-25℃/z+20℃): 4 / 3 / 3 / 2 (z-40℃/z+20℃): 10 / 8 / 6 / 4
高温負荷特性 Load Life	在+85℃環境中施加工作電壓和最大允許紋波電流1000小時后，電容器的性能符合下表要求： After applying rated voltage for 1000 hours at +85℃, Capacitors meet the characteristics requirements measured at +20℃ listed below; 静電容量變化率: Capacitance Change: 初始測量值的±25%以内 Within ±25% of the initial measured value 漏電流: Leakage current: 不大于初始規定值 Less than the initial specified value 損耗角正切值: Tan δ 不大于初始規定值的200% Less than 200% the initial specified value
高温貯存特性 Shelf Life	在+85℃環境中無負荷放置500小時后，電容器的性能符合高温負荷特性中所列的規定值 After leaving capacitors under no load at +85℃ for 500 hours, capacitors meet the characteristics listed above

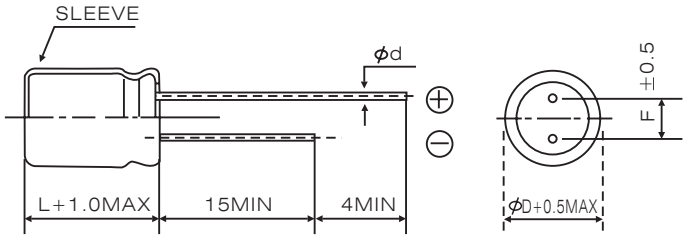
＊ 紋波倍乘因子MULTIPLIER FOR RIPPLE CURRENT
＊ 頻率因子Frequency coefficient

Freq(Hz) / Cap(μF)	50(60)	100(120)	500	1K	10K
0.1 ~ 47	0.80	1.00	1.20	1.30	1.50
100 ~ 220	0.80	1.00	1.10	1.15	1.20

＊ 温度因子TEMPERATURE COEFFICIENT

環境温度(℃) Ambient Temperature	+85	+70	+50
倍乘因子 Factor	1.0	1.6	2.0

- 外形圖及尺寸表
  CASE SIZE TABLE



φD	4	5	6.3	8
F±0.5	1.5	2.0	2.5	3.5
φd±0.1	0.45		0.5	
L	7			9

- SC 尺寸、額定電壓及標稱容量
  DIMENSIONS, RATED VOLTAGE AND CAPACITANCE

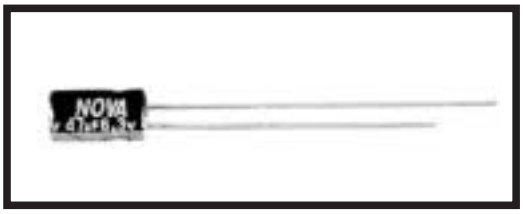
WV(v) / Cap(μF)	6.3(LA)		10(LB)		16(LC)		25(LD)		35(LE)		50(LF)		63(LG)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
0.1(R10)											4×7	1.3	4×7	1.3
0.15(R15)											4×7	1.5	4×7	2.0
0.22(R22)											4×7	3.0	4×7	3.0
0.33(R33)											4×7	4.4	4×7	4.4
0.47(R47)											4×7	5	4×7	6.3
0.68(R68)											4×7	8	4×7	8
1(1R0)											4×7	12	4×7	12
1.5(1R5)											4×7	13	4×7	13
2.2(2R2)											4×7	16	4×7	16
3.3(3R3)									4×7	18	4×7	24	(4×7) 5×7	(19) 24
4.7(4R7)							4×7	21	4×7	22	4×7	27	(4×7) 5×7	(29) 33
6.8(6R8)							4×7	25	4×7	25	5×7	31	(5×7) 6.3×7	(35) 39
10(100)					4×7	28	4×7	31	(4×7) 5×7	(27) 32	5×7	42	(5×7) 6.3×7	(41) 45
15(150)					4×7	34	5×7	40	5×7	43	6.3×7	58	6.3×7	58
22(220)	4×7	34	4×7	38	4×7	42	5×7	55	(5×7) 6.3×7	(51) 60	6.3×7	64	8×9	75
33(330)	4×7	42	4×7	46	(4×7) 5×7	(57) 62	(5×7) 6.3×7	(63) 66	6.3×7	73	8×9	75	8×9	92
47(470)	4×7	50	(4×7) 5×7	(58) 60	5×7	73	6.3×7	80	6.3×7	84	8×9	85		
68(680)	5×7	60	5×7	70	6.3×7	80	6.3×7	84	8×9	95				
100(101)	5×7	87	(5×7) 6.3×7	(80) 99	6.3×7	110	(6.3×7) 8×9	(92) 115	8×9	120				
150(151)	6.3×7	94	6.3×7	105	8×9	120	8×9	145	8×9	145				
220(221)	6.3×7	133	(6.3×7) 8×9	(128) 165	8×9	145	8×9	184						
330(331)	8×9	180	8×9	210	8×9	184								
470(471)	8×9	200	8×9	260										

(1)外形尺寸　Case Size D × L(mm)
(2)最大允許紋波電流　Max allowable ripple current (mA r.m.s./85℃.120Hz)

鋁電解電容器
ALUMINUM ELECTROLYTIC CAPACITOR(CD113C SL)

■ SL 特性 SL FEATURE

＊ 引綫引出超小形品，低漏電流品
Miniature size of radial lead type,Low Leakage current
＊ 適用于高密度裝配
Ideally suited for high-density assembly



■ 特性表SPECIFICATIONS

項目Item	主要特性Performance Characteristics
額定電壓範圍 Rated Voltage Range	6.3V.DC ~ 50V.DC
使用温度範圍 Operating Temperature Range	-40℃ ~ +85℃
標稱靜電容量範圍 Nominal Capacitance Range	0.1 μF ~ 220 μF
靜電容量允許偏差 Capacitance Tolerance	±20%(M,+20℃,120Hz)
漏電流 Leakage Current	施加額定電壓2分鐘：I≤0.002CV 或 0.4μA(取較大者)20℃ After application of rated voltage for 2 minutes: I≤0.002CV or 0.4μA(Whichever is greater)20℃ C: 標稱靜電容量 (μF) C: Nominal Capacitance in μF; V:額定工作電壓 (V) V: Rated Working Voltage in V
損耗角正切值(tanδ) Dissipation Factor	額定工作電壓(V) Rated Working Voltage: 6.3 / 10 / 16 / 25 / 35 / 50 tanδ (MAX) (20℃,120Hz): 0.24 / 0.20 / 0.16 / 0.14 / 0.12 / 0.10
温度特性 Temperature Stability	額定工作電壓(V) Rated Working Voltage: 6.3 / 10 / 16 / 25 / 35 / 50 阻抗比 Impedance Ratio(120Hz) (Z-25℃/z+20℃): 4 / 3 / 2 (z-40℃/z+20℃): 10 / 8 / 6 / 4
高温負荷特性 Load Life	在+85℃環境中施加工作電壓和最大允許紋波電流1000小時后，電容器的性能符合下表要求： After applying rated voltage for 1000 hours at +85℃, Capacitors meet the characteristics requirements measured at +20℃ listed below; 靜電容量變化率: Capacitance Change: 初始測量值的±25%以内 Within ±25% of the initial measured value 漏電流: Leakage current: 不大于初始規定值 Less than the initial specified value 損耗角正切值: Tan δ 不大于初始規定值的200% Less than 200% the initial specified value
高温貯存特性 Shelf Life	在+85℃環境中無負荷放置500小時后，電容器的性能符合高温負荷特性中所列的規定值 After leaving capacitors under no load at +85℃ for 500 hours, capacitors meet the characteristics listed above

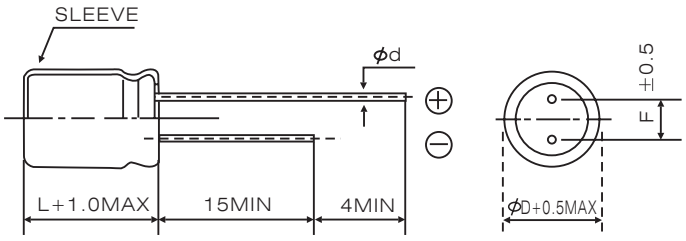
＊ 紋波倍乘因子MULTIPLIER FOR RIPPLE CURRENT
＊ 頻率因子Frequency coefficient

Freq(Hz) / Cap(μF)	50(60)	100(120)	500	1K	10K
0.1 ~ 47	0.80	1.00	1.20	1.30	1.50
100 ~ 220	0.80	1.00	1.10	1.15	1.20

＊ 温度因子TEMPERATURE COEFFICIENT

環境温度(℃) Ambient Temperature	+85	+70	+50
倍乘因子 Factor	1.0	1.6	2.0

- 外形圖及尺寸表
  CASE SIZE TABLE



φD	4	5	6.3	8
F±0.5	1.5	2.0	2.5	3.5
φd±0.1	0.45		0.5	
L	7			9

- SL 尺寸、額定電壓及標稱容量
  DIMENSIONS, RATED VOLTAGE AND CAPACITANCE

WV(v) / Cap(μF)	6.3(LA)		10(LB)		16(LC)		25(LD)		35(LE)		50(LF)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
0.1(R10)											4×7	1
0.22(R22)											4×7	2.3
0.33(R33)											4×7	3.5
0.47(R47)											4×7	5
1(1R0)											4×7	10
2.2(2R2)											4×7	19
3.3(3R3)											4×7	24
4.7(4R7)					4×7	21	4×7	23			5×7	31
10(100)					4×7	29	5×7	33	5×7	36	6.3×7	44
22(220)	4×7	34	5×7	38	5×7	44	6.3×7	51	6.3×7	57	8×9	65
33(330)	5×7	42	5×7	47	6.3×7	57	6.3×7	63	8×9	72		
47(470)	5×7	50	6.3×7	58	6.3×7	68	8×9	78				
100(101)	6.3×7	77	8×9	96	8×9	107						
220(221)	8×9	130										

(1)外形尺寸 Case Size D × L(mm)
(2)最大允許紋波電流 Max allowable ripple current (mA r.m.s./85℃.120Hz)