

MP (CD299)

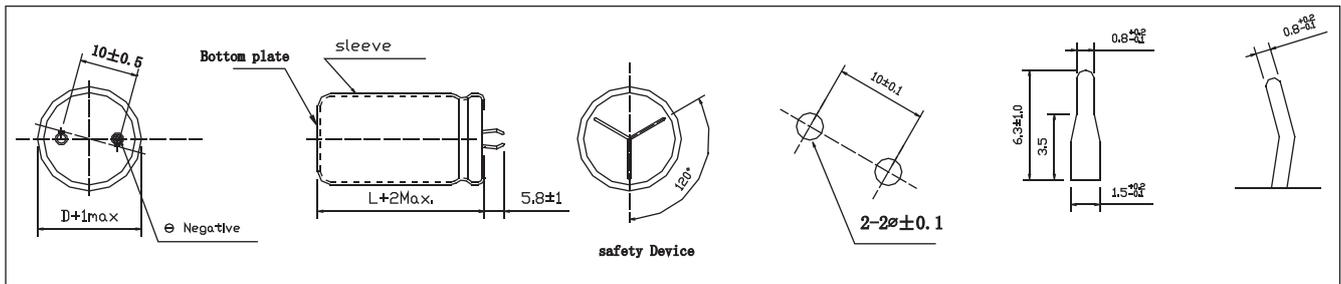


- ⊙ Highly ripple ,high reliability.
- ⊙ Low equivalent series resistance ESR.
- ⊙ Load life with ripple current:5000 hours.
- ⊙ Adapted to the ROHS directive (2002/95/EC).

Specifications

Item	Performance Characteristics	
Operating temperature ran	-40°C ~ +105°C	-25°C ~ +105°C
Rated voltage range	10 ~ 100V	200 ~ 450V
Nominal capacitance rang	100 ~ 33000µF	
Capacitance tolerance	±20% (120Hz, +20°C)	
Leakage current	$I \leq 3\sqrt{CV}$ (µA) (at 20°C, after 5minutes)	
(tg δ) Dissipation factor (+20 °C, 120Hz)	U_R (V)	10 16 25 35 50 63~100 200~40 450
	tg δ	0.60 0.45 0.30 0.25 0.20 0.15 0.15 0.20
Temperature characteristics (Impedance ratio at 120Hz)	U_R (V)	10 16 25 35 50 63~100 200 250 400 450
	Z-25°C/Z+20°C	6 6 6 6 4 3 8 8 8 8
	Z-40°C/Z+20°C	15 15 15 10 8 6
Load life	After applying rated voltage with specified ripple current for 5000 hours at +105°C and then resumed 16 hours: Capacitance change : ±20% Initial measured value Leakage current : ≤ Initial specified value Dissipation factor : ≤ 2 times Initial specified value	
Shelf life	After storage for 1000 hours at +105°C, U_R to be applied for 30 minutes and then resumed 16 hours Capacitance change : ± 15% Initial measured value Leakage current : ≤ Initial specified value Dissipation factor : ≤ 1.5 times Initial specified value	

Case table



■ Dimensions

Voltage (Code)		10V(1A)			16V(1C)			25V(1E)		
Cap.(μ F)	Cod	Case Siz	Impedan	Ripple Current	Case Siz	Impedan	Ripple Current	Case Siz	Impedan	Ripple Curre
4700	470							22x30	57	1.6
								25x25	57	1.6
6800	682	22x25	78	1.4	22x30	49	1.8	25x30	43	1.9
10000	103	22x30	56	1.8	25x30	36	2.2	25x40	32	2.5
15000	153	22x40	39	2.3	25x40	26	2.8	30x40	23	3.2
22000	223	30x35	28	3.0	30x40	18	3.5			
33000	333	30x45	20	3.9						

Voltage (Code)		35V(1V)			50V(1H)			63V(1J)		
Cap.(μ F)	Cod	Case Siz	Impedan	Ripple Current	Case Siz	Impedan	Ripple Current	Case Siz	Impedan	Ripple Curre
1000	102							22x25	159	1.0
1500	152							22x35	106	1.4
2200	222	22x25	90	1.1	22x35	90	1.4	25x35	72	1.7
								30x30	85	1.8
3300	332	22x30	60	1.5	25x35	60	1.8	30x40	56	2.3
		25x25	60	1.5						
4700	472	22x40	48	1.9	30x35	45	2.2	35x35	45	2.7
6800	682	25x40	37	2.3	30x50	35	2.9	35x50	31	3.6
10000	103	30x40	28	2.9	35x45	26	3.6			
15000	153	35x40	20	3.8						
18000	183	35x45	18	4.3						

Voltage (Code)		80V(1K)			100V(2A)			200V(2D)		
Cap.(μ F)	Cod	Case Siz	Impedan	Ripple Current	Case Siz	Impedan	Ripple Current	Case Siz	Impedan	Ripple Curre
220	221							22x30	700	0.96
330	331							22x40	470	1.3
470	471							25x40	330	1.7
								30x30	330	1.7
560	561				25x25	190	1.0			
680	681				22x35	156	1.2	30x40	230	2.2
1000	102	25x25	133	1.3	25x35	106	1.4	35x45	160	3.1
					30x30	106	1.5			
1200	122	30x25	110	1.5						
1500	152	25x35	89	1.8	30x40	70	1.9	35x50	110	3.9
2200	222	30x35	60	2.0	30x50	60	2.3			
3300	332	35x35	48	2.8	35x50	40	3.0			
4700	472	35x45	34	3.4						

Voltage (Code)		250V(2E)			400V(2G)			450V(2W)		
Cap.(μ F)	Cod	Case Siz	Impedan	Ripple Current	Case Siz	Impedan	Ripple Current	Case Siz	Impedan	Ripple Curre
100	101				25x30	1090	0.7	22x45	1600	0.75
								30x30	1600	0.76
150	151				25x40	730	0.95	25x45	1070	1.0
					30x30	730	0.94	30x35	1070	0.99
220	221	25x30	700	1.0	30x40	500	1.3	30x45	730	1.3
					35x30	500	1.3	35x35	730	1.3
330	331	25x40	470	1.4	30x50	330	1.7	35x50	490	1.8
		30x30	470	1.4	35x40	330	1.7			
390	391				35x45	280	1.9	35x50	410	2.0
470	471	30x35	330	1.8	35x50	240	2.2			
680	681	30x45	230	2.3						
1000	102	35x45	160	3.1						

Maximum Allowable Ripple Current (A rms) at 105°C 120Hz.
Maximum Impedance (m Ω) at 20°C 20KHz.