RH(CD288HC / CD286 / CD263)

Features

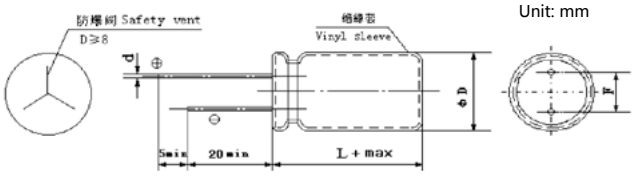
- Endurance:+105℃ 2000 hours.
- High frequency, low impedance.
- RoHS Compliant.

Specifications

Item	Performance Characteristics
Operating Temperature Range	-40~+105℃
Rated Voltage Range	10~450V
Nominal Capacitance Range	0.47~4700μF
Capacitance Tolerance	±20%(+20℃ ,120Hz)
Leakage Current	V < 100V, I ≤ 0.01CVor 3μA,Whichever is greater. V ≥ 160V, I ≤ 0.02CVor 10μA, Whichever is greater Where,I:Max,leakage current (μA),C:Nominal Capacitance(μF),V:Rated voltage(V) (at 20℃ ,After 2 minutes)
Dissipation Factor (tgδ,+20℃ ,120Hz)	U_R(V) 10 16 25 35 50 63 100 160 200 250 350 400 450 tgδ 0.16 0.14 0.12 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.12 0.12 0.15 When rated capacitance is over 1000μF, tgδ shall be added 0.02 to the listed value with increase of every 1000μF.
Temperature Characteristics (Impedance ratio at 120Hz)	U_R(V) 10 16 25 35 50 63 100 160 200 250 350 400 450 Z-40℃ /+20℃ 5 4 7
Load Life	After applying rated voltage with specified ripple current for 2000 hours at +105℃ and then resumed 24 hours: Capacitance change : ±20% of the initial measured value Leakage current : ≤ the initial specified value Dissipation factor: ≤ 200% of the initial specified value
Shelf Life	After storage for 1000 hours at +105℃ , and then resumed 24 hours: Capacitance change : ±20% of the initial measured value Leakage current : ≤ 200% of the initial specified value Dissipation factor: ≤ 200% of the initial specified value

Diagram of Dimensions

Unit: mm



ϕD	5	6.3	8	10	12.5/13	16	18	22
ϕd	0.5	0.5	0.5/0.6	0.6	0.6	0.8	0.8	1.0
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
ϕD	ΦD+0.5max							
L	L+2max							

Multiplier for Ripple Current

Frequency coefficient

Frequency(Hz)		120	1K	10K	100K
Coefficient	0.47~4.7μF	0.40	0.68	0.78	1.00
	10~47μF	0.50	0.76	0.87	1.00
	100~220μF	0.70	0.85	0.90	1.00
	330~1000μF	0.80	0.93	0.98	1.00
	2200~4700μF	0.90	0.95	1.00	1.00

Standard Size

Rated Voltage (V_{dc})	Capacitance (μF)	Size ΦD×L (mm)	tanδ	Impedance (Ω)MAX 20℃ /100KHz	Rated ripple current (mArms) 105℃ / 100KHz
10 (1A)	0.47	5×11	0.16	130.0	15
	1	5×11	0.16	60.00	20
	2.2	5×11	0.16	28.00	30
	3.3	5×11	0.16	18.50	37
	4.7	5×11	0.16	13.00	42
	10	5×11	0.16	6.000	50
	22	5×11	0.16	2.800	76
	33	5×11	0.16	2.800	84
	47	5×11	0.16	2.450	94
	100	5×11	0.16	1.400	91
	220	6.3×11	0.16	0.650	151
	330	6.3×12	0.16	0.420	162
	470	8×12	0.16	0.120	228
	1000	10×16	0.16	0.140	430
	2200	12.5×20	0.18	0.065	681
	3300	12.5×20	0.20	0.042	791
	4700	16×25	0.22	0.026	1116
16 (1C)	0.47	5×11	0.14	163.0	15
	1	5×11	0.14	77.00	20
	2.2	5×11	0.14	35.00	30
	3.3	5×11	0.14	23.00	30
	4.7	5×11	0.14	16.30	42
	10	5×11	0.14	5.400	50
	22	6.3×11	0.14	2.450	84
	33	5×11	0.14	2.300	92
	47	5×11	0.14	2.000	100
	100	6.3×11	0.14	1.250	108
	220	6.3×12	0.14	0.500	191
	330	8×12	0.14	0.350	205
	470	10×12	0.14	0.245	272
	1000	10×16	0.14	0.125	513
	2200	12.5×20	0.16	0.050	807
	3300	13×25	0.18	0.035	1034
	4700	16×25	0.20	0.025	1283
25 (1E)	0.47	5×11	0.14	163.0	15
	1	5×11	0.14	77.00	20
	2.2	5×11	0.14	35.00	30
	3.3	5×11	0.14	23.00	30
	4.7	5×11	0.14	16.30	42
	10	5×11	0.14	5.400	50
	22	6.3×11	0.14	2.450	84
	33	5×11	0.14	2.300	92
	47	5×11	0.14	2.000	100
	100	6.3×11	0.14	1.250	108
	220	6.3×12	0.14	0.500	191
	330	8×12	0.14	0.350	205
	470	10×12	0.14	0.245	272
	1000	10×16	0.14	0.125	513
	2200	12.5×20	0.16	0.050	807
	3300	13×25	0.18	0.035	1034
	4700	16×25	0.20	0.025	1283
35 (1V)	33	6.3×11	0.10	1.600	104
	47	6.3×11	0.10	1.300	124
	100	8×12	0.10	0.800	152
	220	10×12	0.10	0.350	252
	330	10×16	0.10	0.230	312
	470	10×16	0.10	0.160	416
	1000	12.5×20	0.10	0.080	775
	2200	16×25	0.12	0.035	1133
	3300	16×30	0.14	0.023	1472
50 (1H)	33	6.3×12	0.10	2.300	136
	47	6.3×12	0.10	1.150	146
	100	8×12	0.10	0.600	152
	220	10×16	0.10	0.280	291
	330	10×20	0.10	0.185	348
	470	12.5×20	0.10	0.130	475
	1000	16×25	0.10	0.060	860
	2200	18×35	0.12	0.028	1422
63 (1J)	47	8×12	0.10	1.630	188
	100	10×12	0.10	0.540	169
	220	10×20	0.10	0.245	325
	330	12.5×20	0.10	0.160	397
	470	13×25	0.10	0.115	531
	1000	16×30	0.10	0.054	941
100 (2A)	100	12.5×20	0.10	0.770	249
	220	16×25	0.10	0.350	459
	330	16×25	0.10	0.230	493
	470	16×30	0.10	0.160	645

Rated Voltage (V_{dc})	Capacitance (μF)	Size ΦD×L (mm)	tanδ	Impedance (Ω)MAX 20℃ /100KHz	Rated ripple current (mArms) 105℃ / 100KHz
160 (2C)	2.2	6.3×11	0.10	35.00	32
	3.3	6.3×11	0.10	23.30	40
	4.7	8×12	0.10	16.40	57
	10	10×12	0.10	7.700	76
	22	10×16	0.10	3.500	190
	33	12.5×20	0.10	2.330	250
	47	12.5×20	0.10	1.640	240
	100	16×25	0.10	0.770	385
	220	16×30	0.10	0.350	642
200 (2D)	1	5×11	0.10	96.20	20
	2.2	6.3×11	0.10	43.60	40
	3.3	6.3×11	0.10	29.00	47
	4.7	8×12	0.10	20.40	50
	10	10×12	0.10	9.620	76
	22	10×20	0.10	4.360	190
	33	12.5×20	0.10	2.900	202
	47	12.5×20	0.10	2.040	330
	56	12.5×25	0.10	-	340
	68	13×25	0.10	-	380
	100	16×25	0.10	-	410
	120	16×25	0.10	-	450
	150	18×25	0.10	-	510
	220	18×30	0.10	-	715
250 (2E)	0.47	6.3×11	0.08	244.7	22
	1	6.3×11	0.08	115.4	30
	2.2	6.3×11	0.08	52.20	40
	3.3	8×12	0.08	34.80	55
	4.7	8×12	0.08	24.47	77
	10	10×16	0.08	11.54	128
	22	12.5×20	0.08	5.220	196
	33	12.5×20	0.08	3.480	240
	47	13×25	0.08	2.440	360
	56	13×25	0.08	-	410
	82	16×25	0.08	-	545
	100	16×30	0.08	-	570
	220	18×35	0.08	-	815
	330	18×45	0.08	-	900
	470	22×45	0.08	-	985
350 (2V)	0.47	6.3×11	0.08	-	20
	1	6.3×11	0.08	-	27
	2.2	8×12	0.08	-	47
	3.3	10×12	0.08	-	65
	4.7	10×16	0.08	-	90
	10	10×20	0.08	-	116
	22	13×25	0.08	-	260
	33	16×25	0.08	-	350
	47	16×30	0.08	-	460
400 (2G)	1	8×11	0.08	-	45
	2.2	8×12	0.08	-	75
	3.3	10×12	0.08	-	100
	4.7	10×12	0.08	-	130
	1	10×20	0.08	-	158
	22	12.5×20	0.08	-	290
	33	16×20	0.08	-	298
	47	16×25	0.08	-	390
	56	16×25	0.08	-	390
	68	16×30	0.08	-	430
	82	18×30	0.08	-	570
	100	18×30	0.08	-	770
	120	22×31	0.08	-	860
	150	22×31	0.08	-	970
450 (2W)	1	8×12	0.08	-	45
	2.2	10×12	0.08	-	75
	3.3	10×16	0.08	-	100
	4.7	10×20	0.08	-	130
	10	12.5×20	0.08	-	158
	22	16×20	0.08	-	356
	33	16×25	0.08	-	470
	47	18×25	0.08	-	550
	56	18×25	0.08	-	560
	68	18×30	0.08	-	570
	82	18×30	0.08	-	650
	100	18×35	0.08	-	770
	120	18×40	0.08	-	1070
	150	22×40	0.08	-	1260
	220	22×46	0.08	-	1430