EN: This Datasheet/Document is presented by the manufacturer.

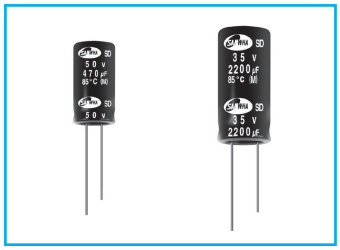
Please visit our website for pricing and availability at www.hestore.hu.

SD Standard, For General Purposes Series

Solvent Proof
WV≦100V

- Standard series for general purposes
- High voltage, high capacitance series
- Voltage range of 6.3~500V
- Complied to the RoHS directive

SD ⇨ RD
Wide temp.



Item	Characteristics
Operating temperature range	WV: 6.3 ~ 450 / 500; Temperature range: -40 ~ +85℃ / -25 ~ +85℃
Leakage current max.	WV≦100: I = 0.01CV or 3μA whichever is greater (after 2 min); I = 0.03CV or 4μA whichever is greater (after 1 min). WV>100: I = 0.02CV+15μA (after 5 min)
Capacitance tolerance	±20% at 120Hz, 20℃
Dissipation factor max. (at 120Hz, 20℃)	Capacitance > 1000μF : tanδ increases by 0.02 for each 1000μF from below value.

WV	6.3	10	16	25	35	50	63	100	160 ~ 250	350 ~ 500
tanδ	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.15	0.20

Low temperature characteristics (Impedance ratio at 120Hz)

WV	6.3	10	16	25	35	50~100	160	200~350	400~450	500
Z-25℃/Z+20℃	5	4	3	2	2	2	4	6	10	12
Z-40℃/Z+20℃	12	10	8	5	4	3	6	8	12	–

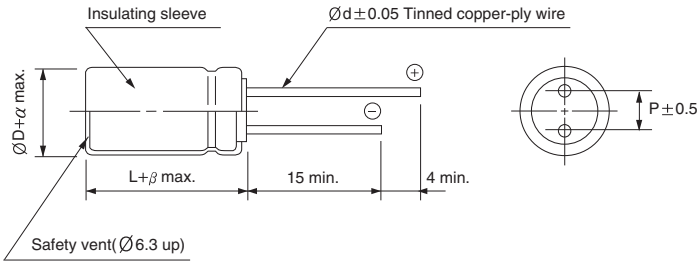
Load life (after application of the rated voltage for 2000 hours at 85℃)

Leakage current	Less than specified value
Capacitance change	Within ±20% of initial value
tanδ	Less than 200% of specified value

Shelf life (at 85℃): After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20℃ by the KS C IEC 60384 - 4

DRAWING

Unit : mm



ØD	5	6.3	8	10	12.5	16	18	22
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
Ød	0.5	0.5	0.6	0.6	0.6	0.8	0.8	1.0
α	0.5							1.0
β	1.5			2.0				3.0

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

WV	Frequency / μF	60Hz	120Hz	1kHz	10kHz	50kHz	100kHz≦
6.3~100	~ 47	0.75	1.00	1.55	2.00	2.00	2.00
	68 ~ 680	0.80	1.00	1.35	1.50	1.62	1.75
	1000 ~	0.85	1.00	1.15	1.15	1.32	1.50
160~500	~ 220	0.80	1.00	1.40	1.60	1.70	1.80
	330 ~	0.90	1.00	1.13	1.15	1.32	1.50

SD series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV / μF	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	500
1.0						5×11 21	5×11 23	5×11 23						8×11.5 26	
1.5						5×11 26	5×11 28	5×11 28						8×11.5 32	
2.2						5×11 32	5×11 34	5×11 34						8×11.5 33	
3.3						5×11 39	5×11 42	5×11 42	6.3×11 45	6.3×11 45	6.3×11 48	8×11.5 53	8×11.5 56	8×11.5 50	
4.7						5×11 46	5×11 50	5×11 50	6.3×11 53	6.3×11 57	6.3×11 57	8×11.5 66	10×12.5 61	10×12.5 72	10×16 69
6.8						5×11 56	5×11 60	5×11 60	8×11.5 76	8×11.5 76	8×11.5 76	10×12.5 88	10×12.5 87	10×16 86	10×16 76
10						5×11 68	5×11 72	5×11 76	8×11.5 96	8×11.5 96	10×12.5 107	10×12.5 107	10×16 115	10×20 115	12.5×25 178
15						5×11 83	5×11 89	6.3×11 89	10×12.5 131	10×16 143	10×16 143	10×20 156	12.5×20 165	12.5×20 164	
22						5×11 101	5×11 108	6.3×11 124	10×12.5 156	10×16 173	10×16 170	12.5×20 222	12.5×20 218	12.5×25 217	16×25 265
33						5×11 123	6.3×11 151	8×11.5 178	10×16 209	10×20 232	10×20 247	16×20 297	12.5×25 296	16×25 294	16×31.5 310
47					5×11 131	★6.3×11 169	6.3×11 181	8×11.5 222	10×20 293	10×20 293	12.5×20 319	16×20 353	16×25 387	16×31.5 384	18×31.5 412
68				5×11 144	★6.3×11 182	6.3×11 203	8×11.5 256	10×12.5 293	12.5×20 391	12.5×25 426	16×20 425	16×25 465	16×31.5 488	16×35.5 503	18×35.5 457
100			5×11 162	★ 5×11 181	6.3×11 220	8×11.5 291	8×11.5 311	10×16 388	12.5×25 516	16×25 516	16×25 564	18×31.5 592	18×35.5 667	18×40 546	
150			★ 5×11 198	6.3×11 246	8×11.5 318	10×12.5 414	10×12.5 422	10×20 528	16×20 632	16×25 691	16×31.5 726	18×40 845	18×40 863	22×45 1283	
220	5×11 201	★ 5×11 218	6.3×11 276	6.3×11 327	8×11.5 386	10×12.5 501	10×16 586	12.5×20 737	16×25 873	18×31.5 962	18×35.5 988	22×41 1112	22×45 1183		
330	★6.3×11 283	6.3×11 307	6.3×11 359	8×11.5 431	10×12.5 549	10×16 672	10×20 784	12.5×25 1002	16×35.5 1152	18×35.5 1206	22×41 1495				
470	6.3×11 338	6.3×11 366	8×11.5 476	10×12.5 550	10×16 740	10×20 875	12.5×20 1098	16×25 1328	18×40 1434	22×41 1495					
680	8×11.5 480	8×11.5 520	8×11.5 600	10×16 754	10×20 947	12.5×20 1235	12.5×25 1440	16×31.5 1643	22×41 1831						
1000	8×11.5 581	10×12.5 659	10×12.5 796	10×16 942	12.5×20 1306	12.5×25 1633	16×25 1937	18×31.5 1965							
2200	10×16 983	10×16 1051	10×20 1331	12.5×20 1542	16×25 2032	16×31.5 2220	18×31.5 2445								
3300	10×20 1286	12.5×20 1545	12.5×20 1686	16×25 2194	16×31.5 2502	18×31.5 2765	18×40 2987								
4700	12.5×20 1736	12.5×25 1903	12.5×25 2129	16×25 2448	16×35.5 2905	18×40 3272									
6800	12.5×25 2129	16×25 2332	16×25 2577	18×31.5 3114	18×40 3408	← Case size ØD×L (mm) ← Ripple current (mA rms) at 85°C, 120Hz									
10000	16×25 2629	16×31.5 2830	16×31.5 3176	18×40 3544											
15000	16×35.5 2959	16×35.5 3284	18×35.5 3656												
22000	18×40 3733	18×40 3843	22×41 4012												

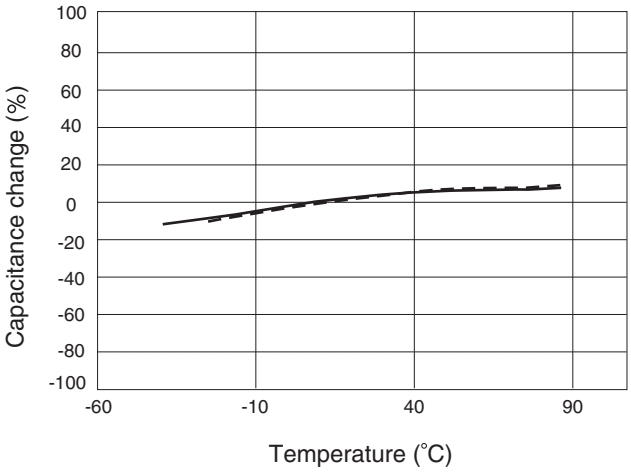
SD series

TYPICAL PERFORMANCE

—— 16V 1000μF
····· 400V 10μF

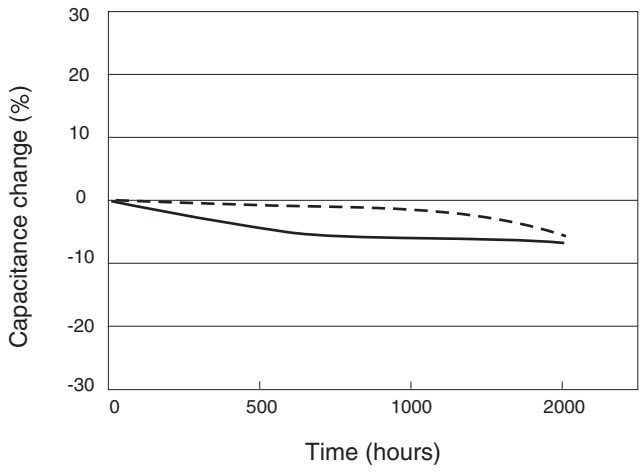
● TEMPERATURE CHARACTERISTICS

Capacitance change vs. temperature

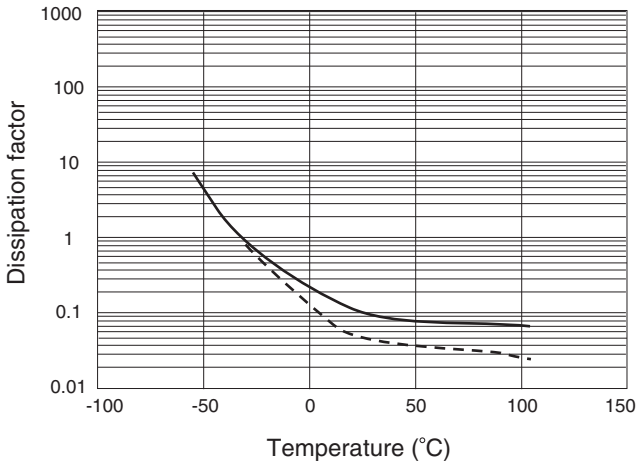


● LOAD LIFE (at +85˚C)

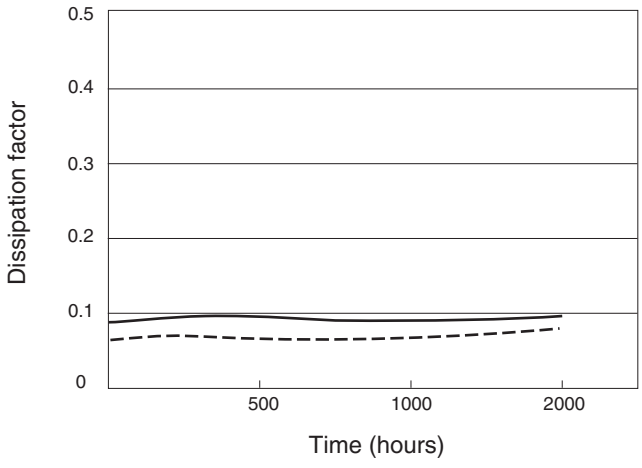
Capacitance change vs. time



Dissipation factor vs. temperature

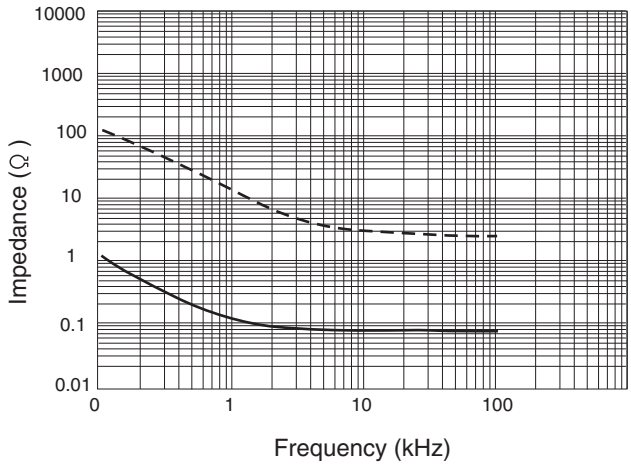


Dissipation factor vs. time



● FREQUENCY CHARACTERISTICS

Impedance vs. frequency



Leakage current vs. time

