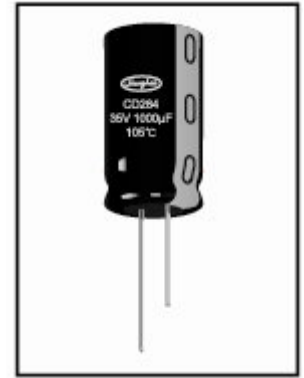
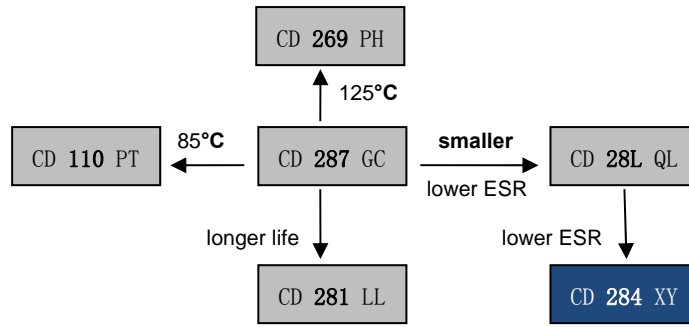


CD 284 XY Series



2000 ~ 5000h at 105°C

- Lowest Impedance
- High Ripple Current
- Switching Power Supplies

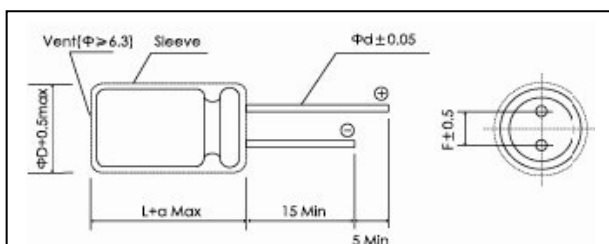


Items	Characteristics																		
Operating Temperature Range(°C)	-40~ +105																		
Voltage Range (V)	6.3~ 100																		
Capacitance Range(µF)	6.8 ~ 6800																		
Capacitance Tolerance (20°C, 120Hz)	±20%																		
Leakage Current (µA)	After 2 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 3, whichever is greater. C:Nominal Capacitance(µF) V:Rated Voltage(V)																		
Dissipation Factor (20°C, 120Hz)	<table border="1"> <thead> <tr> <th>Rated Voltage(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Tan δ(max)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </tbody> </table>	Rated Voltage(V)	6.3	10	16	25	35	50	63	100	Tan δ(max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08
	Rated Voltage(V)	6.3	10	16	25	35	50	63	100										
Tan δ(max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08											
For Capacitances>1000µF add 0.02 to every 1000µF																			
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage(V)	6.3~100																	
	Z _{-25°C} /Z _{+20°C}	2																	
	Z _{-40°C} /Z _{+20°C}	3																	

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	$\phi \leq 6.3$:4000h $\phi 8$:6000h $\phi 10$:8000h $\phi 12.5$:10000h	$\phi \geq 8$:>250000h	$\phi \leq 6.3$:2000h $\phi 8$:3000h $\phi 10$:4000h $\phi 12.5$:5000h	$\phi \leq 6.3$:2500h $\phi 8$:3500h $\phi 10$:5000h $\phi 12.5$:6000h	1000h
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change	Within ±50% of initial value		Within ±25% of initial value	Within ±25% of initial value	Within ±20% of initial value
Dissipation Factor	Not more than 300% of specified value		Not more than 200% of specified value	Not more than 200% of specified value	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U _R I _R 105°C	U _R 1.4 x I _R 40°C	U _R I _R 105°C	U _R I _R = 0 105°C	After test: U _R to be applied for 30min>24h before measurement U _R = 0 I _R = 0 105°C

Dimensions

mm



ΦD	5	6.3	8	10	12.5	16	18
F	2.0	2.5	3.5	5.0		7.5	
Φd	0.5		0.6			0.8	
a	1.5			2.0			

Frequency Coefficient

Frequency	120Hz	1kHz	10kHz	100kHz
Cap(µF)				
6.8~33	0.42	0.70	0.90	1.00
39~270	0.50	0.73	0.92	1.00
330~680	0.55	0.88	0.98	1.00
820~1800	0.66	0.90	0.99	1.00
2200~6800	0.70	0.92	1.00	1.00

Temperature Coefficient

Temperature(°C)	≤65	+80	+105
Coefficient	2.0	1.7	1.0



Ratings for CD 284 XY Series

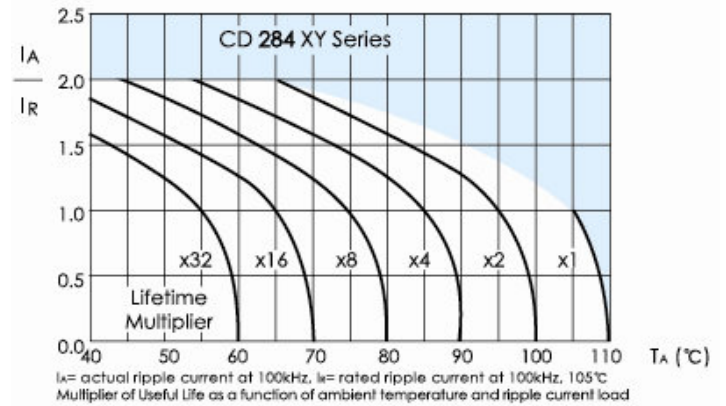
U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Max Imp -10°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size ΦD×L	P/N
(v)	(μF)	(Ω)	(Ω)	(Ω)	(mArms)	(mm)	-
6.3 (7.2) 0J	150	1.946	0.3	1.0	250	5X11.5	ECR0JXY151M□□050011
	330	0.885	0.13	0.41	405	6.3x11.5	ECR0JXY331M□□063011
	560	0.521	0.072	0.22	760	8x11.5	ECR0JXY561M□□080011
	820	0.356	0.056	0.17	995	8x16	ECR0JXY821M□□080016
	1000	0.292	0.053	0.16	1030	10x12.5	ECR0JXY102M□□100012
	1200	0.243	0.041	0.13	1250	8X20	ECR0JXY122M□□080020
		0.243	0.038	0.12	1430	10x16	ECR0JXY122M□□100016
	1500	0.195	0.023	0.069	1820	10x20	ECR0JXY152M□□100020
	2200	0.145	0.022	0.066	2150	10x25	ECR0JXY222M□□100025
	3300	0.105	0.021	0.053	2360	12.5X20	ECR0JXY332M□□125020
	3900	0.088	0.018	0.045	2770	12.5x25	ECR0JXY392M□□125025
	4700	0.079	0.016	0.041	3290	12.5X30	ECR0JXY472M□□125030
	5600	0.071	0.015	0.039	3400	12.5x35	ECR0JXY562M□□125035
		0.071	0.018	0.045	3140	16x20	ECR0JXY562M□□160020
	6800	0.062	0.016	0.043	3460	16x25	ECR0JXY682M□□160025
	10 (13) 1A	100	2.521	0.30	1.0	250	5x11.5
220		1.146	0.13	0.41	405	6.3x11.5	ECR1AXY221M□□063011
470		0.536	0.072	0.22	760	8x11.5	ECR1AXY471M□□080011
680		0.371	0.056	0.17	995	8x16	ECR1AXY681M□□080016
		0.371	0.053	0.16	1030	10x12.5	ECR1AXY681M□□100012
1000		0.252	0.041	0.13	1250	8x20	ECR1AXY102M□□080020
		0.252	0.038	0.12	1430	10x16	ECR1AXY102M□□100016
1200		0.210	0.023	0.069	1820	10x20	ECR1AXY122M□□100020
1500		0.168	0.022	0.066	2150	10x25	ECR1AXY152M□□100025
2200		0.127	0.021	0.053	2360	12.5X20	ECR1AXY222M□□125020
3300		0.092	0.018	0.045	2770	12.5x25	ECR1AXY332M□□125025
3900		0.078	0.016	0.041	3290	12.5x30	ECR1AXY392M□□125030
		0.078	0.018	0.045	3140	16X20	ECR1AXY392M□□160020
4700		0.071	0.015	0.039	3400	12.5x35	ECR1AXY472M□□125035
5600		0.064	0.016	0.043	3460	16X25	ECR1AXY562M□□160025
16 (20) 1C		56	3.791	0.30	1.0	250	5x11.5
	120	1.769	0.13	0.41	405	6.3X11.5	ECR1CXY121M□□063011
	330	0.643	0.072	0.22	760	8x11.5	ECR1CXY331M□□080011
	470	0.452	0.056	0.17	995	8X16	ECR1CXY471M□□080016
		0.452	0.053	0.16	1030	10x12.5	ECR1CXY471M□□100012
	680	0.312	0.041	0.13	1250	8X20	ECR1CXY681M□□080020
		0.312	0.038	0.12	1430	10x16	ECR1CXY681M□□100016
	1000	0.212	0.023	0.069	1820	10x20	ECR1CXY102M□□100020
	1200	0.177	0.022	0.066	2150	10x25	ECR1CXY122M□□100025
	1500	0.142	0.021	0.053	2360	12.5x20	ECR1CXY152M□□125020
	2200	0.109	0.018	0.045	2770	12.5x25	ECR1CXY222M□□125025
	2700	0.088	0.016	0.041	3290	12.5x30	ECR1CXY272M□□125030
		0.088	0.018	0.045	3140	16x20	ECR1CXY272M□□160020
	3300	0.080	0.015	0.039	3400	12.5x35	ECR1CXY332M□□125035
	3900	0.068	0.016	0.043	3460	16x25	ECR1CXY392M□□160025

U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Max Imp -10°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size ΦD×L	P/N
(v)	(μF)	(Ω)	(Ω)	(Ω)	(mArms)	(mm)	-
25 (32) 1E	47	3.953	0.30	1.0	250	5x11.5	ECR1EXY470M□□050011
	100	1.858	0.13	0.41	405	6.3x11.5	ECR1EXY101M□□063011
	220	0.844	0.072	0.22	760	8x11.5	ECR1EXY221M□□080011
	330	0.563	0.056	0.17	995	8x16	ECR1EXY331M□□080016
		0.563	0.053	0.16	1030	10x12.5	ECR1EXY331M□□100012
	470	0.395	0.041	0.13	1250	8X20	ECR1EXY471M□□080020
		0.395	0.038	0.12	1430	10x16	ECR1EXY471M□□100016
	680	0.273	0.023	0.069	1820	10x20	ECR1EXY681M□□100020
	820	0.227	0.022	0.066	2150	10x25	ECR1EXY821M□□100025
	1000	0.186	0.021	0.053	2360	12.5X20	ECR1EXY102M□□125020
	1500	0.124	0.018	0.045	2770	12.5x25	ECR1EXY152M□□125025
	1800	0.103	0.016	0.041	3290	12.5X30	ECR1EXY182M□□125030
		0.103	0.018	0.045	3140	16x20	ECR1EXY182M□□160020
	2200	0.097	0.015	0.039	3400	12.5x35	ECR1EXY222M□□125035
	2700	0.079	0.016	0.043	3460	16x25	ECR1EXY272M□□160025
	35 (44) 1V	33	4.825	0.30	1.0	250	5x11.5
56		2.843	0.13	0.41	405	6.3X11.5	ECR1VXY560M□□063011
150		1.062	0.072	0.22	760	8x11.5	ECR1VXY151M□□080011
220		0.724	0.056	0.17	995	8x16	ECR1VXY221M□□080016
		0.724	0.053	0.16	1030	10x12.5	ECR1VXY221M□□100012
270		0.590	0.041	0.13	1250	8X20	ECR1VXY271M□□080020
330		0.483	0.038	0.12	1430	10x16	ECR1VXY331M□□100016
470		0.339	0.023	0.069	1820	10X20	ECR1VXY471M□□100020
560		0.284	0.022	0.066	2150	10x25	ECR1VXY561M□□100025
680		0.234	0.021	0.053	2360	12.5x20	ECR1VXY681M□□125020
1000		0.159	0.018	0.045	2770	12.5x25	ECR1VXY102M□□125025
1200		0.133	0.016	0.041	3290	12.5x30	ECR1VXY122M□□125030
		0.133	0.018	0.045	3140	16X20	ECR1VXY122M□□160020
1500		0.106	0.015	0.039	3400	12.5x35	ECR1VXY152M□□125035
1800		0.088	0.016	0.043	3460	16X25	ECR1VXY182M□□160025
50 (63) 1H		22	6.032	0.34	1.18	238	5x11.5
	56	2.370	0.14	0.50	385	6.3X11.5	ECR1HXY560M□□063011
	100	1.327	0.074	0.22	724	8x11.5	ECR1HXY101M□□080011
	120	1.106	0.061	0.18	950	8X16	ECR1HXY121M□□080016
	150	0.885	0.061	0.18	979	10x12.5	ECR1HXY151M□□100012
	180	0.737	0.046	0.14	1190	8X20	ECR1HXY181M□□080020
	220	0.603	0.042	0.12	1370	10x16	ECR1HXY221M□□100016
	270	0.491	0.030	0.090	1580	10x20	ECR1HXY271M□□100020
	330	0.402	0.028	0.085	1870	10x25	ECR1HXY331M□□100025
	470	0.282	0.027	0.068	2050	12.5x20	ECR1HXY471M□□125020
	560	0.237	0.023	0.059	2410	12.5X25	ECR1HXY561M□□125025
	680	0.195	0.021	0.052	2860	12.5x30	ECR1HXY681M□□125030
	820	0.162	0.019	0.051	2960	12.5X35	ECR1HXY821M□□125035
		0.162	0.023	0.059	2730	16x20	ECR1HXY821M□□160020
	1000	0.133	0.021	0.056	3010	16X25	ECR1HXY102M□□160025

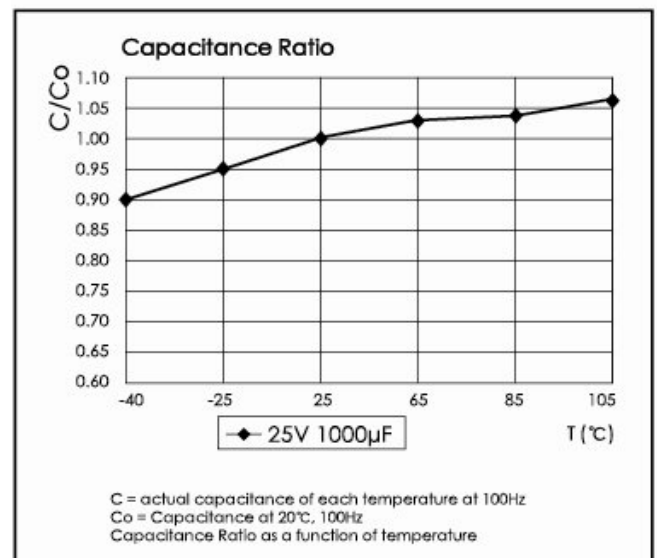
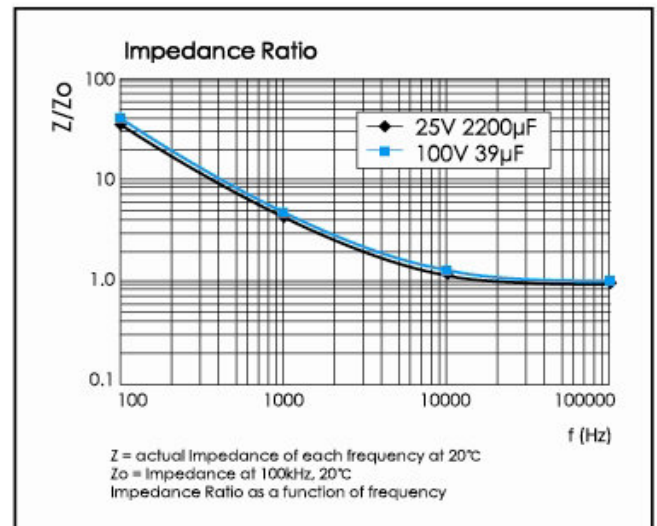
Ratings for CD 284 XY Series

U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Max Imp -10°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size ΦD×L	P/N
(v)	(μF)	(Ω)	(Ω)	(Ω)	(mA _{rms})	(mm)	-
63 (79) 1J	15	7.962	0.88	3.5	165	5x 11.5	ECR1JXY150M□□050011
	33	3.619	0.35	1.4	265	6.3x 11.5	ECR1JXY330M□□063011
	56	2.133	0.22	0.88	500	8x11.5	ECR1JXY560M□□080011
	82	1.456	0.16	0.64	665	8x16	ECR1JXY820M□□080016
		1.456	0.15	0.60	685	10x12.5	ECR1JXY820M□□100012
	120	0.995	0.12	0.48	820	8x20	ECR1JXY121M□□080020
		0.995	0.11	0.44	945	10x16	ECR1JXY121M□□100016
	180	0.663	0.080	0.32	1100	10x20	ECR1JXY181M□□100020
		0.663	0.082	0.27	1135	12.5x16	ECR1JXY181M□□125016
	220	0.543	0.073	0.29	1300	10x25	ECR1JXY221M□□100025
	270	0.442	0.060	0.20	1495	12.5x20	ECR1JXY271M□□125020
	330	0.362	0.043	0.14	1850	12.5x25	ECR1JXY331M□□125025
	470	0.254	0.039	0.13	2250	12.5x30	ECR1JXY471M□□125030
		0.254	0.045	0.14	1990	16x20	ECR1JXY471M□□160020
	560	0.213	0.033	0.11	2450	12.5x35	ECR1JXY561M□□125035
		0.213	0.032	0.096	2550	16x25	ECR1JXY561M□□160025
	680	0.176	0.029	0.096	2780	12.5x40	ECR1JXY681M□□125040
		0.176	0.038	0.10	2450	18x20	ECR1JXY681M□□180020
	820	0.146	0.026	0.078	2810	16x31.5	ECR1JXY821M□□160031
		0.146	0.031	0.084	2780	18x25	ECR1JXY821M□□180025
1000	0.119	0.021	0.063	2835	16x35.5	ECR1JXY102M□□160035	
	0.119	0.025	0.068	3270	18x31.5	ECR1JXY102M□□180031	
1200	0.100	0.019	0.057	3340	16x40	ECR1JXY122M□□160040	
	0.100	0.020	0.054	3310	18x35.5	ECR1JXY122M□□180035	
1500	0.080	0.018	0.049	3420	18x40	ECR1JXY152M□□180040	
100 (125) 2A	6.8	15.611	1.40	5.6	125	5X11.5	ECR2AXY6R8M□□050011
	15	7.077	0.57	2.3	205	6.3x11.5	ECR2AXY150M□□063011
	27	3.932	0.36	1.4	355	8x11.5	ECR2AXY270M□□080011
	39	2.722	0.25	1.0	450	8x16	ECR2AXY390M□□080016
	47	2.259	0.24	0.96	450	10x12.5	ECR2AXY470M□□100012
	56	1.896	0.19	0.76	565	8x20	ECR2AXY560M□□080020
	68	1.561	0.18	0.72	580	10x16	ECR2AXY680M□□100016
	82	1.295	0.13	0.52	750	10x20	ECR2AXY820M□□100020
		1.295	0.13	0.43	735	12.5x16	ECR2AXY820M□□125016
	100	1.062	0.12	0.48	880	10x25	ECR2AXY101M□□100025
	120	0.885	0.094	0.31	1045	12.5x20	ECR2AXY121M□□125020
	180	0.590	0.071	0.23	1195	12.5x25	ECR2AXY181M□□125025
	220	0.483	0.063	0.21	1410	12.5x30	ECR2AXY221M□□125030
		0.483	0.071	0.21	1295	16x20	ECR2AXY221M□□160020
	270	0.393	0.052	0.17	1560	12.5x35	ECR2AXY271M□□125035
		0.393	0.053	0.16	1600	16x25	ECR2AXY271M□□160025
	330	0.393	0.069	0.19	1470	18x20	ECR2AXY271M□□180020
		0.322	0.046	0.15	1700	12.5x40	ECR2AXY331M□□125040
	390	0.272	0.041	0.12	1750	16x31.5	ECR2AXY391M□□160031
		0.272	0.049	0.13	1620	18x25	ECR2AXY391M□□180025
470	0.226	0.033	0.10	1890	16x35.5	ECR2AXY471M□□160035	
	0.226	0.039	0.11	1775	18x31.5	ECR2AXY471M□□180031	
560	0.190	0.030	0.090	2080	16x40	ECR2AXY561M□□160040	
	0.190	0.031	0.084	2060	18x35.5	ECR2AXY561M□□180035	
680	0.156	0.028	0.076	2570	18x40	ECR2AXY681M□□180040	

Lifetime Diagram



Typical Curves



Customer products are available on request.