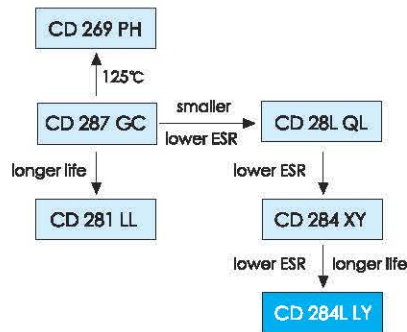


6000 - 10000h at 105°C

- Higher ripple current capability and smaller sizes than CD284 series
- Lower Impedance at high frequency
- Load life of 6000 to 10000hrs

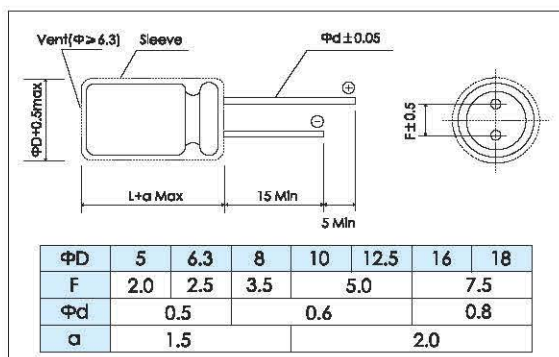


Items	Characteristics									
Operating Temperature Range (°C)	-40 ~ +105									
Voltage Range (V)	6.3 ~ 100									
Capacitance Range (μF)	8.2 ~ 8200									
Capacitance Tolerance (20°C, 120Hz)	± 20%									
Leakage Current (μA)	After 2 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 3, whichever is greater. C: Nominal Capacitance (μF) V: Rated Voltage (V)									
Dissipation Factor (20°C, 120Hz)	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100
	Tan δ (max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08
	For Capacitances >1000μF add 0.02 to every 1000μF									
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100
	$Z_{-25^{\circ}\text{C}} / Z_{+20^{\circ}\text{C}}$	4	3	2	2	2	2	2	2	2
	$Z_{-40^{\circ}\text{C}} / Z_{+20^{\circ}\text{C}}$	12	10	8	6	4	3	3	3	3

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	$\Phi \leq 6.3$: 8000h $\Phi = 8$: 10000h $\Phi \geq 10$: 12000h	$\Phi > 8$: 110000h	$\Phi \leq 6.3$: 6000h $\Phi = 8$: 8000h $\Phi \geq 10$: 10000h	$\Phi \leq 6.3$: 7000h $\Phi = 8$: 10000h $\Phi \geq 10$: 12000h	500h
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 ± 30% of Initial value (6.3V, 10V, ± 40%)		Within ± 25% of Initial value (6.3V, 10V, ± 30%)	Within ± 25% of Initial value (6.3V, 10V, ± 30%)	Within ± 20% of Initial value
Dissipation Factor	Not more than 300% of specified value (6.3V, 10V, ± 400%)		Not more than 200% of specified value (6.3V, 10V, ± 300%)	Not more than 200% of specified value (6.3V, 10V, ± 300%)	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U_R I_R 105°C	U_R $1.4 \times I_R$ 60°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

Dimensions

mm



Frequency Coefficient

Frequency	120Hz	1kHz	10kHz	100kHz
Cap (μF)				
8.2 ~ 33	0.42	0.70	0.90	1.00
47 ~ 270	0.50	0.73	0.92	1.00
330 ~ 680	0.55	0.77	0.94	1.00
820 ~ 1800	0.60	0.80	0.96	1.00
2200 ~ 6800	0.70	0.85	0.98	1.00

Temperature Coefficient

Temperature(°C)	≤65	+85	+105
Coefficient	2.0	1.7	1.0

CD 284L LY Series



Ratings for CD 284L LY Series

U _r (Surge Voltage) Code	Rated Capa- citance	Max ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Max Imp -10°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size ΦD x L	P/N
(V)	(μF)	(Ω)	(Ω)	(Ω)	(mA rms)	(mm)	-
6.3 (7.2) 0J	220	1.327	0.22	0.80	345	5×11.5	ECR0JLY221M□□050011
	470	0.621	0.094	0.35	540	6.3×11.5	ECR0JLY471M□□063011
	820	0.356	0.056	0.19	945	8×11.5	ECR0JLY821M□□080011
	1200	0.243	0.045	0.15	1250	8×16	ECR0JLY122M□□080016
	1200	0.243	0.039	0.14	1330	10×12.5	ECR0JLY122M□□100012
	1500	0.195	0.029	0.11	1500	8×20	ECR0JLY152M□□080020
	1800	0.162	0.028	0.10	1760	10×16	ECR0JLY182M□□100016
	2200	0.145	0.020	0.060	1960	10×20	ECR0JLY222M□□100020
	2700	0.118	0.018	0.054	2250	10×25	ECR0JLY272M□□100025
	3900	0.088	0.017	0.043	2480	12.5×20	ECR0JLY392M□□125020
	4700	0.079	0.015	0.038	2900	12.5×25	ECR0JLY472M□□125025
	5600	0.071	0.013	0.033	3450	12.5×30	ECR0JLY562M□□125030
	6800	0.062	0.015	0.038	3250	16×20	ECR0JLY682M□□160020
	6800	0.062	0.012	0.031	3570	12.5×35	ECR0JLY682M□□125035
	8200	0.058	0.013	0.035	2630	16×25	ECR0JLY822M□□160025
10 (13) 1A	150	1.681	0.22	0.80	345	5×11.5	ECR1ALY151M□□050011
	330	0.764	0.094	0.35	540	6.3×11.5	ECR1ALY331M□□063011
	680	0.371	0.056	0.19	945	8×11.5	ECR1ALY681M□□080011
	1000	0.252	0.045	0.15	1250	8×16	ECR1ALY102M□□080016
	1000	0.252	0.039	0.14	1330	10×12.5	ECR1ALY102M□□100012
	1500	0.168	0.029	0.11	1500	8×20	ECR1ALY152M□□080020
	1500	0.168	0.028	0.10	1760	10×16	ECR1ALY152M□□100016
	1800	0.140	0.020	0.060	1960	10×20	ECR1ALY182M□□100020
	2200	0.127	0.018	0.054	2250	10×25	ECR1ALY222M□□100025
	3300	0.092	0.017	0.043	2480	12.5×20	ECR1ALY332M□□125020
	3900	0.078	0.015	0.038	2900	12.5×25	ECR1ALY392M□□125025
	4700	0.071	0.013	0.033	3450	12.5×30	ECR1ALY472M□□125030
	4700	0.071	0.015	0.038	3250	16×20	ECR1ALY472M□□160020
	5600	0.064	0.012	0.031	3570	12.5×35	ECR1ALY562M□□125035
	6800	0.057	0.013	0.035	3630	16×25	ECR1ALY682M□□160025
16 (20) 1C	100	2.123	0.22	0.80	345	5×11.5	ECR1CLY101M□□050011
	220	0.965	0.094	0.35	540	6.3×11.5	ECR1CLY221M□□063011
	470	0.452	0.056	0.19	945	8×11.5	ECR1CLY471M□□080011
	680	0.312	0.045	0.15	1250	8×16	ECR1CLY681M□□080016
	680	0.312	0.039	0.14	1330	10×12.5	ECR1CLY681M□□100012
	1000	0.212	0.029	0.11	1500	8×20	ECR1CLY102M□□080020
	1000	0.212	0.028	0.10	1760	10×16	ECR1CLY102M□□100016
	1500	0.142	0.020	0.060	1960	10×20	ECR1CLY152M□□100020
	1800	0.118	0.018	0.054	2250	10×25	ECR1CLY182M□□100025
	2200	0.109	0.017	0.043	2480	12.5×20	ECR1CLY222M□□125020
	2700	0.088	0.015	0.038	2900	12.5×25	ECR1CLY272M□□125025
	3300	0.080	0.013	0.033	3450	12.5×30	ECR1CLY332M□□125030
	3300	0.080	0.015	0.038	3250	16×20	ECR1CLY332M□□160020
	3900	0.068	0.012	0.031	3570	12.5×35	ECR1CLY392M□□125035
	4700	0.062	0.013	0.035	3630	16×25	ECR1CLY472M□□160025
25 (32) 1E	68	2.732	0.22	0.80	345	5×11.5	ECR1ELY680M□□050011
	150	1.238	0.094	0.35	540	6.3×11.5	ECR1ELY151M□□063011
	330	0.563	0.056	0.19	945	8×11.5	ECR1ELY331M□□080011
	390	0.476	0.045	0.15	1250	8×16	ECR1ELY391M□□080016
	470	0.395	0.039	0.14	1330	10×12.5	ECR1ELY471M□□100012
	560	0.332	0.029	0.11	1500	8×20	ECR1ELY561M□□080020
	680	0.273	0.028	0.10	1760	10×16	ECR1ELY681M□□100016
	820	0.227	0.020	0.060	1960	10×20	ECR1ELY821M□□100020
	1000	0.186	0.018	0.054	2250	10×25	ECR1ELY102M□□100025
	1500	0.124	0.017	0.043	2480	12.5×20	ECR1ELY152M□□125020
	1800	0.103	0.015	0.038	2900	12.5×25	ECR1ELY182M□□125025
	2200	0.097	0.013	0.033	3450	12.5×30	ECR1ELY222M□□125030
	2200	0.097	0.015	0.038	3250	16×20	ECR1ELY222M□□160020
	2700	0.079	0.012	0.031	3570	12.5×35	ECR1ELY272M□□125035
	3300	0.072	0.013	0.035	3630	16×25	ECR1ELY332M□□160025

U _r (Surge Voltage) Code	Rated Capa- citance	Max ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Max Imp -10°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size ΦD x L	P/N
(V)	(μF)	(Ω)	(Ω)	(Ω)	(mA rms)	(mm)	-
35 (44) 1V	47	3.388	0.22	0.80	345	5×11.5	ECR1VLY470M□□050011
	100	1.592	0.094	0.35	540	6.3×11.5	ECR1VLY101M□□063011
	220	0.724	0.056	0.19	945	8×11.5	ECR1VLY221M□□080011
	270	0.590	0.045	0.15	1250	8×16	ECR1VLY271M□□080016
	330	0.483	0.039	0.14	1330	10×12.5	ECR1VLY331M□□100012
	390	0.408	0.029	0.11	1500	8×20	ECR1VLY391M□□080020
	470	0.339	0.028	0.10	1760	10×16	ECR1VLY471M□□100016
	560	0.284	0.020	0.060	1960	10×20	ECR1VLY561M□□100020
	680	0.234	0.018	0.054	2250	10×25	ECR1VLY681M□□100025
	1000	0.159	0.017	0.043	2480	12.5×20	ECR1VLY102M□□125020
	1200	0.133	0.015	0.038	2900	12.5×25	ECR1VLY122M□□125025
	1500	0.106	0.013	0.033	3450	12.5×30	ECR1VLY152M□□125030
	1500	0.106	0.015	0.038	3250	16×20	ECR1VLY152M□□160020
	1800	0.088	0.012	0.031	3570	12.5×35	ECR1VLY182M□□125035
	2200	0.084	0.013	0.035	2630	16×25	ECR1VLY222M□□160025
50 (63) 1H	27	4.915	0.34	1.18	238	5×11.5	ECR1HLY270M□□050011
	56	2.370	0.14	0.50	385	6.3×11.5	ECR1HLY560M□□063011
	100	1.327	0.074	0.22	724	8×11.5	ECR1HLY101M□□080011
	120	1.106	0.061	0.18	950	8×16	ECR1HLY121M□□080016
	150	0.885	0.061	0.18	979	10×12.5	ECR1HLY151M□□100012
	180	0.737	0.046	0.14	1190	8×20	ECR1HLY181M□□080020
	220	0.603	0.042	0.12	1370	10×16	ECR1HLY221M□□100016
	270	0.491	0.030	0.090	1580	10×20	ECR1HLY271M□□100020
	330	0.402	0.028	0.085	1870	10×25	ECR1HLY331M□□100025
	470	0.282	0.027	0.068	2050	12.5×20	ECR1HLY471M□□125020
	560	0.237	0.023	0.059	2410	12.5×25	ECR1HLY561M□□125025
	680	0.195	0.021	0.052	2860	12.5×30	ECR1HLY681M□□125030
	820	0.162	0.023	0.059	2730	16×20	ECR1HLY821M□□160020
	820	0.162	0.019	0.051	2960	12.5×35	ECR1HLY821M□□125035
	1000	0.133	0.021	0.056	3010	16×25	ECR1HLY102M□□160025
63 (79) 1J	15	7.962	0.88	3.5	173	5×11.5	ECR1JLY150M□□050011
	33	3.619	0.35	1.4	278	6.3×11.5	ECR1JLY330M□□063011
	82	1.454	0.22	0.88	525	8×11.5	ECR1JLY820M□□080011
	100	1.194	0.16	0.64	688	8×16	ECR1JLY101M□□080016
	120	0.995	0.15	0.60	725	10×12.5	ECR1JLY121M□□100012
	150	0.796	0.12	0.48	861	8×20	ECR1JLY151M□□080020
	180	0.663	0.11	0.44	998	10×16	ECR1JLY181M□□100016
	220	0.543	0.078	0.31	1200	10×20	ECR1JLY221M□□100020
	330	0.362	0.069	0.28	1410	10×25	ECR1JLY331M□□100025
	390	0.306	0.060	0.19	1570	12.5×20	ECR1JLY391M□□125020
	470	0.254	0.043	0.14	1990	12.5×25	ECR1JLY471M□□125025
	560	0.213	0.035	0.13	2410	12.5×30	ECR1JLY561M□□125030
	560	0.213	0.043	0.14	2100	16×20	ECR1JLY561M□□160020
	680	0.176	0.033	0.11	2620	12.5×35	ECR1JLY681M□□125035
	820	0.146	0.027	0.090	2940	12.5×40	ECR1JLY821M□□125040
	820	0.146	0.032	0.096	2730	16×25	ECR1JLY821M□□160025
	820	0.146	0.038	0.10	2500	18×20	ECR1JLY821M□□180020
	1200	0.100	0.024	0.068	2990	16×31.5	ECR1JLY122M□□160031
	1200	0.100	0.031	0.084	2800	18×25	ECR1JLY122M□□180025
	1500	0.080	0.021	0.057	3040	16×35.5	ECR1JLY152M□□160035
	1500	0.080	0.025	0.068	3300	18×31.5	ECR1JLY152M□□180031
	1800	0.066	0.020	0.054	3570	18×35.5	ECR1JLY182M□□180035
	2200	0.066	0.018	0.049	3670	18×40	ECR1JLY222M□□180040

Ratings for CD 284L LY Series

U_r (Surge Voltage) Code	Rated Capa- citance	Max ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Max Imp -10°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size $\Phi D \times L$	P/N
(V)	(μF)	(Ω)	(Ω)	(Ω)	(mAmps)	(mm)	-
80 (100) 1K	12	8.846	1.4	5.6	163	5×11.5	ECR1KLY120M□□050011
	33	3.217	0.57	2.3	267	6.3×11.5	ECR1KLY330M□□063011
	56	1.896	0.36	1.4	462	8×11.5	ECR1KLY560M□□080011
	68	1.561	0.25	1.0	585	8×16	ECR1KLY680M□□080016
	82	1.295	0.23	0.96	624	10×12.5	ECR1KLY820M□□100012
	100	1.062	0.19	0.76	735	8×20	ECR1KLY101M□□080020
	120	0.885	0.17	0.72	780	10×16	ECR1KLY121M□□100016
	180	0.590	0.12	0.52	1040	10×20	ECR1KLY181M□□100020
	220	0.483	0.11	0.47	1170	10×25	ECR1KLY221M□□100025
	270	0.393	0.085	0.31	1430	12.5×20	ECR1KLY271M□□125020
	330	0.322	0.060	0.23	1620	12.5×25	ECR1KLY331M□□125025
	390	0.272	0.051	0.21	1950	12.5×30	ECR1KLY391M□□125030
	390	0.272	0.058	0.21	1750	16×20	ECR1KLY391M□□160020
	470	0.226	0.043	0.17	2140	12.5×35	ECR1KLY471M□□125035
	560	0.190	0.036	0.15	2340	12.5×40	ECR1KLY561M□□125040
	560	0.190	0.044	0.16	2210	16×25	ECR1KLY561M□□160025
	560	0.190	0.054	0.18	1950	18×20	ECR1KLY561M□□180020
	680	0.156	0.033	0.12	2400	16×31.5	ECR1KLY681M□□160031
	820	0.129	0.038	0.13	2270	18×25	ECR1KLY821M□□180025
	820	0.129	0.029	0.10	2600	16×35.5	ECR1KLY821M□□160035
100 (125) 2A	1000	0.106	0.031	0.11	2470	18×31.5	ECR1KLY102M□□180031
	1000	0.106	0.027	0.090	2860	16×40	ECR1KLY102M□□160040
	1200	0.088	0.027	0.084	2860	18×35.5	ECR1KLY122M□□180035
	1500	0.071	0.026	0.076	3510	18×40	ECR1KLY152M□□180040
	8.2	12.946	1.4	5.6	163	5×11.5	ECR2ALY82M□□050011
	18	5.898	0.57	2.3	267	6.3×11.5	ECR2ALY180M□□063011
	33	3.217	0.36	1.4	462	8×11.5	ECR2ALY330M□□080011
	47	2.259	0.25	1.0	585	8×16	ECR2ALY470M□□080016
	56	1.896	0.23	0.96	624	10×12.5	ECR2ALY560M□□100012
	68	1.561	0.19	0.76	735	8×20	ECR2ALY680M□□080020
	82	1.295	0.17	0.72	780	10×16	ECR2ALY820M□□100016
	100	1.062	0.12	0.52	1040	10×20	ECR2ALY101M□□100020
	120	0.885	0.11	0.47	1170	10×25	ECR2ALY121M□□100025
	150	0.708	0.085	0.31	1430	12.5×20	ECR2ALY151M□□125020
	220	0.483	0.060	0.23	1620	12.5×25	ECR2ALY221M□□125025
	270	0.393	0.051	0.21	1950	12.5×30	ECR2ALY271M□□125030
	270	0.393	0.058	0.21	1750	16×20	ECR2ALY271M□□160020
	330	0.322	0.043	0.17	2140	12.5×35	ECR2ALY331M□□125035
	390	0.272	0.036	0.15	2340	12.5×40	ECR2ALY391M□□125040
	390	0.272	0.044	0.16	2210	16×25	ECR2ALY391M□□160025
	390	0.272	0.054	0.18	1950	18×20	ECR2ALY391M□□180020
	470	0.226	0.033	0.12	2400	16×31.5	ECR2ALY471M□□160031
	470	0.226	0.038	0.113	2270	18×25	ECR2ALY471M□□180025
	560	0.190	0.029	0.10	2600	16×35.5	ECR2ALY561M□□160035
	560	0.190	0.031	0.11	2470	18×31.5	ECR2ALY561M□□180031
	680	0.156	0.027	0.090	2860	16×40	ECR2ALY681M□□160040
	680	0.156	0.027	0.084	2860	18×35.5	ECR2ALY681M□□180035
	820	0.129	0.026	0.076	3510	18×40	ECR2ALY821M□□180040

Customer products are available on request.

Lifetime Diagram

