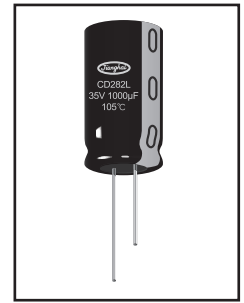
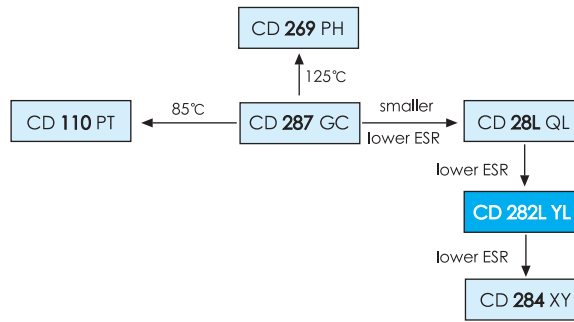


# CD 282L YL SERIES



4000 - 10000h at 105°C

- Ultra Low Impedance
- Switching power supplies
- High ripple current

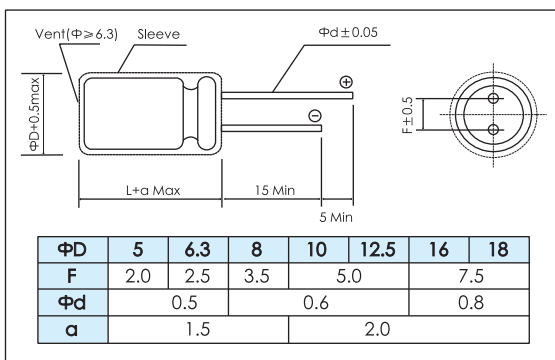


Items	Characteristics																											
Operating Temperature Range (°C)	-40 ~ +105																											
Voltage Range (V)	6.3 ~ 100																											
Capacitance Range (μF)	6.8 ~ 18000																											
Capacitance Tolerance (20°C, 120Hz)	± 20%																											
Leakage Current (μA)	After 2 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 3μA, 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)	<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>Z<sub>-25°C</sub> / Z<sub>+20°C</sub></td> <td>4</td> <td>3</td> <td></td> <td></td> <td></td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>Z<sub>-40°C</sub> / Z<sub>+20°C</sub></td> <td>8</td> <td>6</td> <td>4</td> <td></td> <td></td> <td>3</td> <td></td> <td></td> </tr> </tbody> </table>	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	Z <sub>-25°C</sub> / Z <sub>+20°C</sub>	4	3				2			Z <sub>-40°C</sub> / Z <sub>+20°C</sub>	8	6	4			3		
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100																			
	Z <sub>-25°C</sub> / Z <sub>+20°C</sub>	4	3				2																					
Z <sub>-40°C</sub> / Z <sub>+20°C</sub>	8	6	4			3																						

Lifetime	Useful Life				Load Life		Endurance Test		Shelf Life
	Φ 5-6.3 Φ 8-10 Φ 12.5-18	6.3~10V 6000h 8000h 1000h	16~100V 7000h 9000h 12000h	≥250000h	6.3~10V 4000h 6000h 8000h	16~100V 5000h 7000h 10000h	6.3~10V 6000h 8000h 10000h	16~100V 7000h 9000h 12000h	
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 ± 40% 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 <sub>R</sub> I <sub>R</sub> 105°C		U <sub>R</sub> 1.4 x I <sub>R</sub> 40°C		U <sub>R</sub> I <sub>R</sub> 105°C		U <sub>R</sub> I <sub>R</sub> = 0 105°C		After test: U <sub>c</sub> to be applied for 30min >24h before measurement

## Dimensions

mm



## Frequency Coefficient

Cap (μF)	Frequency			
	120Hz	1kHz	10kHz	100kHz
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	0.77	0.94	1.00
820 ~ 1800	0.60	0.80	0.96	1.00
2200 ~ 18000	0.70	0.85	0.98	1.00

## Temperature Coefficient

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

## Ratings for CD 282L YL Series

U <sub>R</sub> (Surge Voltage) Code	Rated Capacitance	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)	(mArms)	(mm)	-
6.3 (7.2) 0J	150	0.58	2.3	210	5×11.5	ECROJYL151M□□050011
	330	0.22	0.87	340	6.3×11.5	ECROJYL331M□□063011
	680	0.13	0.52	640	8×11.5	ECROJYL681M□□080011
	820	0.080	0.32	865	10×12.5	ECROJYL821M□□100012
	1000	0.087	0.35	840	8×16	ECROJYL102M□□080016
	1200	0.069	0.27	1050	8×20	ECROJYL122M□□080020
		0.060	0.24	1210	10×16	ECROJYL122M□□100016
	1500	0.046	0.18	1400	10×20	ECROJYL152M□□100020
	1800	0.049	0.16	1450	12.5×16	ECROJYL182M□□125016
	2200	0.042	0.17	1650	10×25	ECROJYL222M□□100025
	2700	0.031	0.12	1910	10×30	ECROJYL272M□□100030
		0.042	0.12	1940	16×16	ECROJYL272M□□160016
	3300	0.035	0.12	1900	12.5×20	ECROJYL332M□□125020
	3900	0.027	0.089	2230	12.5×25	ECROJYL392M□□125025
		0.043	0.11	2210	18×16	ECROJYL392M□□180016
	4700	0.024	0.078	2650	12.5×30	ECROJYL472M□□125030
	5600	0.020	0.065	2880	12.5×35	ECROJYL562M□□125035
		0.027	0.078	2530	16×20	ECROJYL562M□□160020
	6800	0.017	0.056	3350	12.5×40	ECROJYL682M□□125040
		0.021	0.060	2930	16×25	ECROJYL682M□□160025
		0.026	0.067	2860	18×20	ECROJYL682M□□180020
	8200	0.017	0.050	3450	16×31.5	ECROJYL822M□□160031
10000	0.015	0.044	3610	16×35.5	ECROJYL103M□□160035	
	0.019	0.049	3140	18×25	ECROJYL103M□□180025	
12000	0.013	0.038	4080	16×40	ECROJYL123M□□160040	
	0.015	0.040	4170	18×31.5	ECROJYL123M□□180031	
15000	0.014	0.038	4220	18×35.5	ECROJYL153M□□180035	
18000	0.012	0.032	4280	18×40	ECROJYL183M□□180040	
10 (13) 1A	100	0.58	2.3	210	5×11.5	ECR1AYL101M□□050011
	220	0.22	0.87	340	6.3×11.5	ECR1AYL221M□□063011
	470	0.13	0.52	640	8×11.5	ECR1AYL471M□□080011
	680	0.087	0.35	840	8×16	ECR1AYL681M□□080016
		0.080	0.32	865	10×12.5	ECR1AYL681M□□100012
	1000	0.069	0.27	1050	8×20	ECR1AYL102M□□080020
		0.060	0.24	1210	10×16	ECR1AYL102M□□100016
	1200	0.046	0.18	1400	10×20	ECR1AYL122M□□100020
	1500	0.042	0.17	1650	10×25	ECR1AYL152M□□100025
		0.049	0.16	1450	12.5×16	ECR1AYL152M□□125016
	2200	0.031	0.12	1910	10×30	ECR1AYL222M□□100030
		0.035	0.12	1900	12.5×20	ECR1AYL222M□□125020
	2700	0.042	0.12	1940	16×16	ECR1AYL222M□□160016
		0.043	0.11	2210	18×16	ECR1AYL272M□□180016
	3300	0.027	0.089	2230	12.5×25	ECR1AYL332M□□125025
	3900	0.024	0.078	2650	12.5×30	ECR1AYL392M□□125030
		0.027	0.078	2530	16×20	ECR1AYL392M□□160020
	4700	0.020	0.065	2880	12.5×35	ECR1AYL472M□□125035
	5600	0.017	0.056	3350	12.5×40	ECR1AYL562M□□125040
		0.021	0.060	2930	16×25	ECR1AYL562M□□160025
		0.026	0.067	2860	18×20	ECR1AYL562M□□180020
	6800	0.017	0.050	3450	16×31.5	ECR1AYL682M□□160031
0.019		0.049	3140	18×25	ECR1AYL682M□□180025	
8200	0.015	0.044	3610	16×35.5	ECR1AYL822M□□160035	
	0.015	0.040	4170	18×31.5	ECR1AYL822M□□180031	
10000	0.013	0.038	4080	16×40	ECR1AYL103M□□160040	
	0.014	0.038	4220	18×35.5	ECR1AYL103M□□180035	
12000	0.012	0.032	4280	18×40	ECR1AYL123M□□180040	

U <sub>R</sub> (Surge Voltage) Code	Rated Capacitance	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)	(mArms)	(mm)	-	
16 (20) 1C	56	0.58	2.3	210	5×11.5	ECR1CYL560M□□050011	
	120	0.22	0.87	340	6.3×11.5	ECR1CYL121M□□063011	
	330	0.13	0.52	640	8×11.5	ECR1CYL331M□□080011	
	470	0.087	0.35	840	8×16	ECR1CYL471M□□080016	
		0.080	0.32	865	10×12.5	ECR1CYL471M□□100012	
	680	0.069	0.27	1050	8×20	ECR1CYL681M□□080020	
		0.060	0.24	1210	10×16	ECR1CYL681M□□100016	
	1000	0.046	0.18	1400	10×20	ECR1CYL102M□□100020	
		0.049	0.16	1450	12.5×16	ECR1CYL102M□□125016	
	1200	0.042	0.17	1650	10×25	ECR1CYL122M□□100025	
	1500	0.031	0.12	1910	10×30	ECR1CYL152M□□100030	
		0.035	0.12	1900	12.5×20	ECR1CYL152M□□125020	
		0.042	0.12	1940	16×16	ECR1CYL152M□□160016	
	2200	0.027	0.089	2230	12.5×25	ECR1CYL222M□□125025	
		0.043	0.11	2210	18×16	ECR1CYL222M□□180016	
	2700	0.024	0.078	2650	12.5×30	ECR1CYL272M□□125030	
		0.027	0.078	2530	16×20	ECR1CYL272M□□160020	
	3300	0.020	0.065	2880	12.5×35	ECR1CYL332M□□125035	
	3900	0.017	0.056	3350	12.5×40	ECR1CYL392M□□125040	
		0.021	0.060	2930	16×25	ECR1CYL392M□□160025	
	4700	0.026	0.067	2860	18×20	ECR1CYL392M□□180020	
		0.017	0.050	3450	16×31.5	ECR1CYL472M□□160031	
	5600	0.019	0.049	3140	18×25	ECR1CYL472M□□180025	
		0.015	0.044	3610	16×35.5	ECR1CYL562M□□160035	
	6800	0.015	0.040	4170	18×31.5	ECR1CYL562M□□180031	
		0.013	0.038	4080	16×40	ECR1CYL682M□□160040	
	8200	0.014	0.038	4220	18×35.5	ECR1CYL822M□□180035	
	10000	0.012	0.032	4280	18×40	ECR1CYL103M□□180040	
	25 (32) 1E	47	0.58	2.3	210	5×11.5	ECR1EYL470M□□050011
		100	0.22	0.87	340	6.3×11.5	ECR1EYL101M□□063011
		220	0.13	0.52	640	8×11.5	ECR1EYL221M□□080011
		330	0.087	0.35	840	8×16	ECR1EYL331M□□080016
			0.080	0.32	865	10×12.5	ECR1EYL331M□□100012
		470	0.069	0.27	1050	8×20	ECR1EYL471M□□080020
			0.060	0.24	1210	10×16	ECR1EYL471M□□100016
		680	0.046	0.18	1400	10×20	ECR1EYL681M□□100020
			0.049	0.16	1450	12.5×16	ECR1EYL681M□□125016
		820	0.042	0.17	1650	10×25	ECR1EYL821M□□100025
		1000	0.031	0.12	1910	10×30	ECR1EYL102M□□100030
			0.035	0.12	1900	12.5×20	ECR1EYL102M□□125020
		1200	0.042	0.12	1940	16×16	ECR1EYL102M□□160016
			0.043	0.11	2210	18×16	ECR1EYL122M□□180016
1500		0.027	0.089	2230	12.5×25	ECR1EYL152M□□125025	
1800		0.024	0.078	2650	12.5×30	ECR1EYL182M□□125030	
		0.027	0.078	2530	16×20	ECR1EYL182M□□160020	
2200		0.020	0.065	2880	12.5×35	ECR1EYL222M□□125035	
		0.026	0.067	2860	18×20	ECR1EYL222M□□180020	
2700		0.017	0.056	3350	12.5×40	ECR1EYL272M□□125040	
		0.021	0.060	2930	16×25	ECR1EYL272M□□160025	
3300		0.017	0.050	3450	16×31.5	ECR1EYL332M□□160031	
	0.019	0.049	3140	18×25	ECR1EYL332M□□180025		
3900	0.015	0.044	3610	16×35.5	ECR1EYL392M□□160035		
	0.015	0.040	4170	18×31.5	ECR1EYL392M□□180031		
4700	0.013	0.038	4080	16×40	ECR1EYL472M□□160040		
	0.014	0.038	4220	18×35.5	ECR1EYL472M□□180035		
5600	0.012	0.032	4280	18×40	ECR1EYL562M□□180040		

MINIATURE

# CD 282L YL SERIES



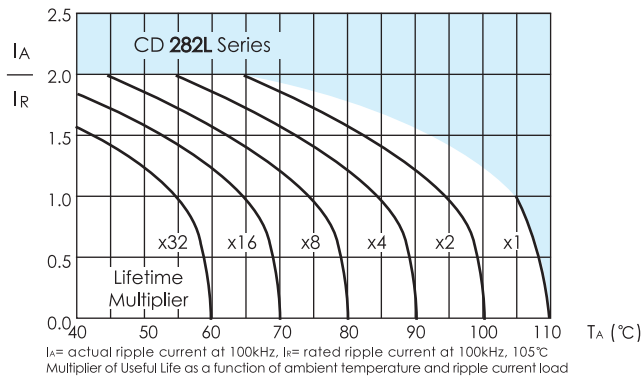
## Ratings for CD 282L YL Series

U <sub>r</sub> (Surge Voltage) Code	Rated Capa- cance	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)	(mAmps)	(mm)	-
35 (44) 1V	33	0.58	2.3	210	5×11.5	ECR1VYL330M□□050011
	56	0.22	0.87	340	6.3×11.5	ECR1VYL560M□□063011
	150	0.13	0.52	640	8×11.5	ECR1VYL151M□□080011
	220	0.087	0.35	840	8×16	ECR1VYL221M□□080016
		0.080	0.32	865	10×12.5	ECR1VYL221M□□100012
	270	0.069	0.27	1050	8×20	ECR1VYL271M□□080020
	330	0.060	0.24	1210	10×16	ECR1VYL331M□□100016
	470	0.046	0.18	1400	10×20	ECR1VYL471M□□100020
		0.049	0.16	1450	12.5×16	ECR1VYL471M□□125016
	560	0.042	0.17	1650	10×25	ECR1VYL561M□□100025
		0.031	0.12	1910	10×30	ECR1VYL681M□□100030
	680	0.035	0.12	1900	12.5×20	ECR1VYL681M□□125020
		0.042	0.12	1940	16×16	ECR1VYL681M□□160016
	1000	0.027	0.089	2230	12.5×25	ECR1VYL102M□□125025
		0.043	0.11	2210	18×16	ECR1VYL102M□□180016
	1200	0.024	0.078	2650	12.5×30	ECR1VYL122M□□125030
		0.027	0.078	2530	16×20	ECR1VYL122M□□160020
	1500	0.020	0.065	2880	12.5×35	ECR1VYL152M□□125035
	1800	0.017	0.056	3350	12.5×40	ECR1VYL182M□□125040
		0.021	0.060	2930	16×25	ECR1VYL182M□□160025
		0.026	0.067	2860	18×20	ECR1VYL182M□□180020
	2200	0.017	0.050	3450	16×31.5	ECR1VYL222M□□160031
		0.019	0.049	3140	18×25	ECR1VYL222M□□180025
	2700	0.015	0.044	3610	16×35.5	ECR1VYL272M□□160035
		0.015	0.040	4170	18×31.5	ECR1VYL272M□□180031
	3300	0.013	0.038	4080	16×40	ECR1VYL332M□□160040
		0.014	0.038	4220	18×35.5	ECR1VYL332M□□180035
	3900	0.012	0.032	4280	18×40	ECR1VYL392M□□180040
50 (63) 1H	22	0.70	2.8	180	5×11.5	ECR1HYL220M□□050011
	56	0.30	1.2	295	6.3×11.5	ECR1HYL560M□□063011
	100	0.17	0.68	555	8×11.5	ECR1HYL101M□□080011
	120	0.12	0.48	730	8×16	ECR1HYL121M□□080016
	150	0.12	0.48	760	10×12.5	ECR1HYL151M□□100012
	180	0.091	0.36	910	8×20	ECR1HYL181M□□080020
	220	0.084	0.34	1050	10×16	ECR1HYL221M□□100016
	270	0.060	0.24	1220	10×20	ECR1HYL271M□□100020
		0.061	0.20	1260	12.5×16	ECR1HYL271M□□125016
	330	0.055	0.22	1440	10×25	ECR1HYL331M□□100025
	470	0.043	0.17	1690	10×30	ECR1HYL471M□□100030
		0.045	0.15	1660	12.5×20	ECR1HYL471M□□125020
	560	0.055	0.17	1690	16×16	ECR1HYL471M□□160016
		0.034	0.11	1950	12.5×25	ECR1HYL561M□□125025
	680	0.054	0.15	1930	18×16	ECR1HYL681M□□180016
		0.030	0.10	2310	12.5×30	ECR1HYL821M□□125030
	820	0.025	0.083	2510	12.5×35	ECR1HYL821M□□125035
		0.034	0.10	2210	16×20	ECR1HYL102M□□160020
	1000	0.021	0.069	2920	12.5×40	ECR1HYL102M□□125040
		0.025	0.075	2555	16×25	ECR1HYL102M□□160025
	1200	0.036	0.097	2490	18×20	ECR1HYL122M□□180020
		0.022	0.066	3010	16×31.5	ECR1HYL122M□□160031
	1500	0.026	0.070	2740	18×25	ECR1HYL152M□□180025
		0.019	0.057	3150	16×35.5	ECR1HYL182M□□160035
	1800	0.016	0.048	3710	16×40	ECR1HYL182M□□160040
		0.021	0.057	3635	18×31.5	ECR1HYL182M□□180031
	2200	0.017	0.046	3680	18×35.5	ECR1HYL222M□□180035
	2700	0.014	0.038	3800	18×40	ECR1HYL272M□□180040
3300	0.014	0.038	3800	18×40	ECR1HYL332M□□180040	

U <sub>r</sub> (Surge Voltage) Code	Rated Capa- cance	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)	(mAmps)	(mm)	-
63 (79) 1J	15	1.8	7.3	62	5×11.5	ECR1JYL150M□□050011
	33	1.0	4.1	126	6.3×11.5	ECR1JYL330M□□063011
	56	0.50	2.2	260	8×11.5	ECR1JYL560M□□080011
	82	0.36	1.7	335	8×16	ECR1JYL820M□□080016
		0.34	1.4	325	10×12.5	ECR1JYL820M□□100012
	120	0.26	1.3	408	8×20	ECR1JYL121M□□080020
		0.25	1.2	400	10×16	ECR1JYL121M□□100016
	180	0.17	0.76	518	10×20	ECR1JYL181M□□100020
		0.18	0.86	527	12.5×16	ECR1JYL181M□□125016
	220	0.16	0.67	595	10×25	ECR1JYL221M□□100025
		0.12	0.57	740	10×30	ECR1JYL271M□□100030
	270	0.13	0.52	765	12.5×20	ECR1JYL271M□□125020
		0.11	0.52	895	16×16	ECR1JYL271M□□160016
	330	0.096	0.36	875	12.5×25	ECR1JYL331M□□125025
	390	0.096	0.40	1030	18×16	ECR1JYL391M□□180016
	470	0.080	0.34	1010	12.5×30	ECR1JYL471M□□125030
		0.077	0.32	1130	16×20	ECR1JYL471M□□160020
	560	0.070	0.30	1140	12.5×35	ECR1JYL561M□□125035
	680	0.062	0.23	1350	16×25	ECR1JYL561M□□160025
		0.060	0.25	1280	12.5×40	ECR1JYL681M□□125040
		0.072	0.27	1300	18×20	ECR1JYL681M□□180020
	820	0.049	0.18	1650	16×31.5	ECR1JYL821M□□160031
		0.052	0.19	1560	18×25	ECR1JYL821M□□180025
	1000	0.040	0.15	1900	16×35.5	ECR1JYL102M□□160035
		0.042	0.15	1720	18×31.5	ECR1JYL102M□□180031
	1200	0.036	0.13	2130	16×40	ECR1JYL122M□□160040
		0.036	0.13	1890	18×35.5	ECR1JYL122M□□180035
	1500	0.032	0.12	2470	18×40	ECR1JYL152M□□180040
100 (125) 2A	6.8	1.8	7.3	62	5×11.5	ECR2AYL68M□□050011
	15	1.0	4.1	126	6.3×11.5	ECR2AYL150M□□063011
	27	0.50	2.2	260	8×11.5	ECR2AYL270M□□080011
	39	0.36	1.7	335	8×16	ECR2AYL390M□□080016
	47	0.34	1.4	325	10×12.5	ECR2AYL470M□□100012
	56	0.26	1.3	408	8×20	ECR2AYL560M□□080020
	68	0.25	1.2	400	10×16	ECR2AYL680M□□100016
	82	0.17	0.76	518	10×20	ECR2AYL820M□□100020
		0.18	0.86	527	12.5×16	ECR2AYL820M□□125016
	100	0.16	0.67	595	10×25	ECR2AYL101M□□100025
	120	0.12	0.57	740	10×30	ECR2AYL121M□□100030
		0.13	0.52	765	12.5×20	ECR2AYL121M□□125020
	150	0.11	0.52	895	16×16	ECR2AYL151M□□160016
	180	0.096	0.36	875	12.5×25	ECR2AYL181M□□125025
		0.096	0.40	1030	18×16	ECR2AYL181M□□180016
	220	0.080	0.34	1010	12.5×30	ECR2AYL221M□□125030
		0.077	0.32	1130	16×20	ECR2AYL221M□□160020
	270	0.070	0.30	1140	12.5×35	ECR2AYL271M□□125035
		0.062	0.23	1350	16×25	ECR2AYL271M□□160025
	330	0.060	0.25	1280	12.5×40	ECR2AYL331M□□125040
		0.072	0.27	1300	18×20	ECR2AYL331M□□180020
	390	0.049	0.18	1650	16×31.5	ECR2AYL391M□□160031
		0.052	0.19	1560	18×25	ECR2AYL391M□□180025
	470	0.040	0.15	1900	16×35.5	ECR2AYL471M□□160035
		0.042	0.15	1720	18×31.5	ECR2AYL471M□□180031
	560	0.036	0.13	2130	16×40	ECR2AYL561M□□160040
	680	0.036	0.13	1890	18×35.5	ECR2AYL681M□□180035
	820	0.032	0.12	2470	18×40	ECR2AYL821M□□180040

Customer products are available on request.

## Lifetime Diagram



## Typical Curves

