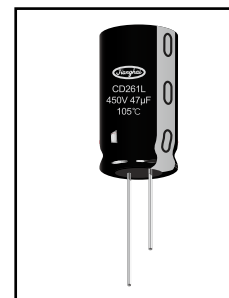
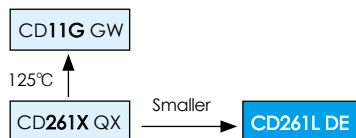


10000-12000h at 105°C

- Rated voltage Range:160V~450V; High Reliability
- Downsized and larger capacitance from current CD261X series
- For Electronic Lighting Ballast, LED Lighting applications

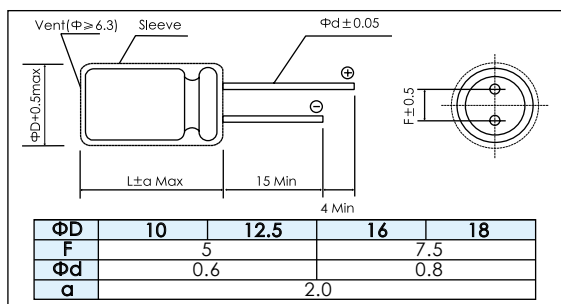


Items	Characteristics							
Operating Temperature Range (°C)	-40 ~ +105							
Voltage range (V)	160 ~ 450							
Capacitance Range (μF)	10 ~ 820							
Capacitance Tolerance(20°C , 120Hz)	± 20%							
Leakage Current (μA)	After 1 minutes at 20°C application of rated voltage, leakage current is not more than 0.04CV+100. C: Nominal Capacitance (μF) V: Rated Voltage (V)							
Dissipation Factor (20°C , 120Hz)	Rated Voltage (V)	160	200	250	350	400	420	450
	Tan δ (max)	0.15			0.20			
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	160	200	250	350	400	420	450
	Z _{-25°C} / Z _{+20°C}	3		4	6			
	Z _{-40°C} / Z _{+20°C}	6			8			

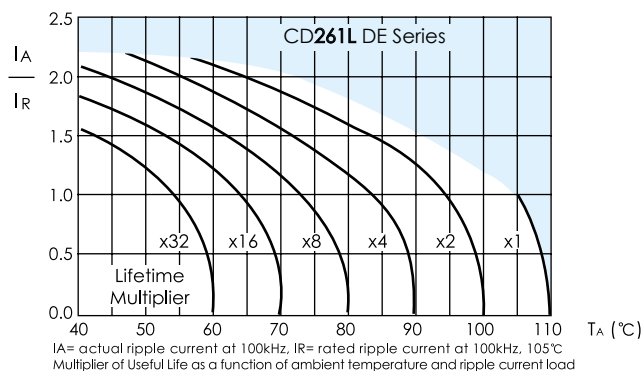
	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	L ≤ 20.5 :12000h L ≥ 25 :14000h	≥ 100000h	L ≤ 20.5 :10000h L ≥ 25 :12000h	L ≤ 20.5 :10000h L ≥ 25 :12000h	1000h
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change	Within ± 30% of initial value		Within ± 20% of initial value	Within ± 20% 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 60°C	U _R I _R 105°C	U _R I _R = 0 105°C	U _R = 0 I _R = 0 105°C After test: U _R to be applied for 30 min > 24h before measurement

Dimensions

mm



Lifetime Diagram



Frequency Coefficient

Frequency Cap(μF)	50/60Hz	120Hz	500Hz	1kHz	10kHz	100kHz
10 ~ 82	0.32	0.40	0.52	0.60	0.84	1.00
100 ~ 220	0.36	0.44	0.58	0.67	0.93	1.00
270 ~ 820	0.40	0.50	0.65	0.75	0.95	1.00

Temperature Coefficient

Temperature(°C)	+65	+85	+105
Coefficient	2.1	1.7	1.0

Ratings for CD261L DE Series

U _r (Surge Voltage) Code	Rated Capacitance	Max.ESR 20°C, 120Hz	Typ.ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size ΦD x L	P/N
(V)	(μF)	(Ω)	(Ω)	(mAms)	(mm)	-
160 (200) 2C	47	4.23	1.69	650	10X16	ECR2CDE470M □□ 100016
	68	2.93	1.17	800	10X20	ECR2CDE680M □□ 100020
	82	2.43	0.97	1038	10X25	ECR2CDE820M □□ 100025
	100	1.99	0.8	1193	10X30	ECR2CDE101M □□ 100030
		1.99	0.8	1350	12.5X20	ECR2CDE101M □□ 125020
	120	1.66	0.66	1395	10X35	ECR2CDE121M □□ 100035
	150	1.33	0.53	1575	10X40	ECR2CDE151M □□ 100040
		1.33	0.53	1643	12.5X25	ECR2CDE151M □□ 125025
	180	1.11	0.44	1800	10X50	ECR2CDE181M □□ 100050
		1.11	0.44	1958	12.5X30	ECR2CDE181M □□ 125030
		1.11	0.44	1800	16X20	ECR2CDE181M □□ 160020
	220	0.9	0.36	2250	16X25.5	ECR2CDE221M □□ 160025
		0.9	0.36	2250	12.5X35	ECR2CDE221M □□ 125035
		0.9	0.36	2228	18X20.5	ECR2CDE221M □□ 180020
	270	0.74	0.29	2240	12.5X40	ECR2CDE271M □□ 125040
		0.74	0.29	2420	16X31.5	ECR2CDE271M □□ 160031
	330	0.6	0.24	2800	12.5X50	ECR2CDE331M □□ 125050
		0.6	0.24	2700	16X31.5	ECR2CDE331M □□ 160031
		0.6	0.24	2360	18X25.5	ECR2CDE331M □□ 180025
	390	0.51	0.2	2760	16X36	ECR2CDE391M □□ 160036
	470	0.42	0.17	3100	16X40	ECR2CDE471M □□ 160040
		0.42	0.17	3100	18X31.5	ECR2CDE471M □□ 180031
	560	0.36	0.14	3720	16X50	ECR2CDE561M □□ 160050
	680	0.36	0.14	3680	18X40	ECR2CDE561M □□ 180040
	820	0.29	0.12	4260	18X45	ECR2CDE821M □□ 180045
	820	0.24	0.1	4460	18X50	ECR2CDE821M □□ 180050
200 (250) 2D	33	6.03	2.41	650	10X16	ECR2DDE330M □□ 100016
	47	4.23	1.69	800	10X20	ECR2DDE470M □□ 100020
	56	3.55	1.42	1038	10X25	ECR2DDE560M □□ 100025
	68	2.93	1.17	1075	10X35	ECR2DDE680M □□ 100035
		2.93	1.17	1350	12.5X20	ECR2DDE680M □□ 125020
	82	2.43	0.97	1250	10X30	ECR2DDE820M □□ 100030
	100	1.99	0.8	1440	10X35	ECR2DDE101M □□ 100035
	120	1.66	0.66	1665	10X40	ECR2DDE121M □□ 100040
		1.66	0.66	1631	12.5X30	ECR2DDE121M □□ 125030
		1.66	0.66	1800	16X20	ECR2DDE121M □□ 160020
	150	1.33	0.53	1755	10X45	ECR2DDE151M □□ 100045
		1.33	0.53	1800	12.5X35	ECR2DDE151M □□ 125035
		1.11	0.44	2070	12.5X35	ECR2DDE181M □□ 125035
	180	1.11	0.44	2025	16X25.5	ECR2DDE181M □□ 160025
		1.11	0.44	2000	18X20.5	ECR2DDE181M □□ 180020
		0.9	0.36	2263	12.5X45	ECR2DDE221M □□ 125045
	220	0.9	0.36	2430	16X31.5	ECR2DDE221M □□ 160031
		0.74	0.29	2520	12.5X50	ECR2DDE271M □□ 125050
		0.74	0.29	2360	16X31.5	ECR2DDE271M □□ 160031
	270	0.74	0.29	2200	18X25.5	ECR2DDE271M □□ 180025
		0.6	0.24	2860	16X40	ECR2DDE331M □□ 160040
		0.6	0.24	2600	18X31.5	ECR2DDE331M □□ 180031
	390	0.51	0.2	3100	16X45	ECR2DDE391M □□ 160045
		0.51	0.2	2860	18X36	ECR2DDE391M □□ 180036
	470	0.42	0.17	3360	16X50	ECR2DDE471M □□ 160050
		0.42	0.17	3240	18X40	ECR2DDE471M □□ 180040
	560	0.36	0.14	3540	18X45	ECR2DDE561M □□ 180045
250 (300) 2E	22	9.04	3.62	650	10X16	ECR2EDE220M □□ 100016
	33	6.03	2.41	800	10X20	ECR2EDE330M □□ 100020
	47	4.23	1.69	975	10X25	ECR2EDE470M □□ 100025
		4.23	1.69	1100	10X30	ECR2EDE470M □□ 100030
	56	3.55	1.42	1350	12.5X20	ECR2EDE560M □□ 125020
	68	2.93	1.17	1250	10X35	ECR2EDE680M □□ 100035
	82	2.43	0.97	1425	10X40	ECR2EDE820M □□ 100040
		2.43	0.97	1425	12.5X25	ECR2EDE820M □□ 125025
	100	1.99	0.8	1620	10X45	ECR2EDE101M □□ 100045
		1.99	0.8	1553	12.5X30	ECR2EDE101M □□ 125030
		1.99	0.8	1428	16X20	ECR2EDE101M □□ 160020
	120	1.66	0.66	1755	10X50	ECR2EDE121M □□ 100050
		1.66	0.66	1778	12.5X35	ECR2EDE121M □□ 125035
		1.66	0.66	1640	18X20.5	ECR2EDE121M □□ 180020
	150	1.33	0.53	2070	12.5X40	ECR2EDE151M □□ 125040
		1.33	0.53	1958	16X31.5	ECR2EDE151M □□ 160031
		1.11	0.44	2183	12.5X50	ECR2EDE181M □□ 125050
	180	1.11	0.44	2138	16X31.5	ECR2EDE181M □□ 160031
		1.11	0.44	2070	18X25.5	ECR2EDE181M □□ 180025
		0.9	0.36	2475	16X36	ECR2EDE221M □□ 160036
	220	0.9	0.36	2475	18X31.5	ECR2EDE221M □□ 180031
		0.74	0.29	2540	16X40	ECR2EDE271M □□ 160040
	270	0.74	0.29	2520	18X36	ECR2EDE271M □□ 180036
		0.6	0.24	2960	16X50	ECR2EDE331M □□ 160050
	330	0.6	0.24	2900	18X40	ECR2EDE331M □□ 180040
		0.51	0.2	3180	18X45	ECR2EDE391M □□ 180045
	470	0.42	0.17	3660	18X50	ECR2EDE471M □□ 180050

U _r (Surge Voltage) Code	Rated Capacitance	Max.ESR 20°C, 120Hz	Typ.ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size ΦD x L	P/N
(V)	(μF)	(Ω)	(Ω)	(mAms)	(mm)	-
350 (400) 2V	12	22.1	6.63	338	10X16	ECR2VDE120M □□ 100016
	22	12.06	3.62	500	10X20	ECR2VDE220M □□ 100020
	27	9.82	2.95	775	10X25	ECR2VDE270M □□ 100025
	33	8.04	2.41	825	10X30	ECR2VDE330M □□ 100030
		8.04	2.41	850	12.5X20	ECR2VDE330M □□ 125020
	39	6.8	2.04	975	10X35	ECR2VDE390M □□ 100035
	47	5.64	1.69	1125	10X40	ECR2VDE470M □□ 100040
		5.64	1.69	1125	12.5X25	ECR2VDE470M □□ 125025
	56	4.74	1.42	1300	10X45	ECR2VDE560M □□ 100045
		4.74	1.42	1375	12.5X30	ECR2VDE560M □□ 125030
		4.74	1.42	1200	16X20	ECR2VDE560M □□ 160020
	68	3.9	1.17	1500	10X50	ECR2VDE680M □□ 100050
		3.9	1.17	1525	12.5X35	ECR2VDE680M □□ 125035
	82	3.23	0.97	1775	12.5X40	ECR2VDE820M □□ 125040
		3.23	0.97	1625	16X25.5	ECR2VDE820M □□ 160025
	100	2.65	0.8	1778	12.5X45	ECR2VDE101M □□ 125045
		2.65	0.8	1733	16X31.5	ECR2VDE101M □□ 160031
		2.65	0.8	1710	18X25.5	ECR2VDE101M □□ 180025
	120	2.21	0.66	1913	12.5X50	ECR2VDE121M □□ 125050
		2.21	0.66	2003	16X36	ECR2VDE121M □□ 160036
	150	1.77	0.53	2250	16X40	ECR2VDE151M □□ 160040
		1.77	0.53	2025	18X31.5	ECR2VDE151M □□ 180031
	180	1.47	0.44	2520	16X50	ECR2VDE181M □□ 160050
		1.47	0.44	2340	18X40	ECR2VDE181M □□ 180040
	220	1.21	0.36	2700	18X45	ECR2VDE221M □□ 180045
	270	0.98	0.29	2800	18X50	ECR2VDE271M □□ 180050
400 (450) 2G	10	26.53	7.96	313	10X16	ECR2GDE100M □□ 100016
	18	14.74	4.42	550	10X20	ECR2GDE180M □□ 100020
	22	12.06	3.62	600	10X25	ECR2GDE220M □□ 100025
	27	9.82	2.95	850	12.5X20	ECR2GDE270M □□ 125020
	33	8.04	2.41	850	10X30	ECR2GDE330M □□ 100030
	39	6.8	2.04	975	10X35	ECR2GDE390M □□ 100035
		6.8	2.04	975	12.5X25	ECR2GDE390M □□ 125025
	47	5.64	1.69	1100	10X40	ECR2GDE470M □□ 100040
		5.64	1.69	1138	12.5X30	ECR2GDE470M □□ 125030
		5.64	1.69	1090	16X20	ECR2GDE470M □□ 160020
	56	4.74	1.42	1230	12.5X30	ECR2GDE560M □□ 125030
		4.74	1.42	1313	12.5X35	ECR2GDE560M □□ 125035
		4.74	1.42	1250	18X20.5	ECR2GDE560M □□ 180020
	68	3.9	1.17	1500	12.5X40	ECR2GDE680M □□ 125040
		3.9	1.17	1425	16X25.5	ECR2GDE680M □□ 160025
		3.23	0.97	1700	12.5X45	ECR2GDE820M □□ 125045
	82	3.23	0.97	1675	16X31.5	ECR2GDE820M □□ 160031
		3.23	0.97	1600	18X25.5	ECR2GDE820M □□ 180025
		2.65	0.8	1710	12.5X50	ECR2GDE101M □□ 125050
	100	2.65	0.8	1710	16X36	ECR2GDE101M □□ 160036
		2.65	0.8	1598	18X31.5	ECR2GDE101M □□ 180031
	120	2.21	0.66	1935	16X40	ECR2GDE121M □□ 160040
		2.21	0.66	1890	18X31.5	ECR2GDE121M □□ 180031
		2.21	0.66	1958	18X36	ECR2GDE121M □□ 180036
	150	1.77	0.53	2100	18X36	ECR2GDE151M □□ 180036
		1.77	0.53	2216	18X40	ECR2GDE151M □□ 180040
	180	1.47	0.44	2300	18X40	ECR2GDE181M □□ 180040
		1.47	0.44	2464	18X45	ECR2GDE181M □□ 180045
	220	1.21	0.36	2745	18X50	ECR2GDE221M □□ 180050
420 (470) 2X	15	17.68	5.31	475	10X20	ECR2XDE150M □□ 100020
	18	14.74	4.42	575	10X25	ECR2XDE180M □□ 100025
	22	12.06	3.62	625	10X25	ECR2XDE220M □□ 100025
	27	9.82	2.95	725	10X30	ECR2XDE270M □□ 100030
		9.82	2.95	750	12.5X20	ECR2XDE270M □□ 125020
	33	9.82	2.95	850	12.5X25	ECR2XDE270M □□ 125025
		8.04	2.41	850	10X35	ECR2XDE330M □□ 100035
	47	8.04	2.41	875	12.5X25	ECR2XDE330M □□ 125025
		8.04	2.41	1000	12.5X30	ECR2XDE330M □□ 125030
		6.8	2.04	975	10X40	ECR2XDE390M □□ 100040
	39	6.8	2.04	1000	16X20	ECR2XDE390M □□ 160020
		5.64	1.69	1100	10X45	ECR2XDE470M □□ 100045
	47	5.64	1.69	1100	12.5X30	ECR2XDE470M □□ 125030
		5.64	1.69	1263	12.5X35	ECR2XDE470M □□ 125035
		5.64	1.69	1100	16X25.5	ECR2XDE470M □□ 160025
	56	4.74	1.42	1275	12.5X35	ECR2XDE560M □□ 125035
		4.74	1.42	1425	12.5X40	ECR2XDE560M □□ 125040
		4.74	1.42	1275	16X25.5	ECR2XDE560M □□ 160025
	68	4.74	1.42	1200	18X20.5	ECR2XDE560M □□ 180020
		3.9	1.17	1500	12.5X45	ECR2XDE680M □□ 125045
		3.9	1.17	1675	12.5X50	ECR2XDE680M □□ 125050
	82	3.9	1.17	1400	16X31.5	ECR2XDE680M □□ 160031
		3.9	1.17	1538	18X25.5	ECR2XDE680M □□ 180025

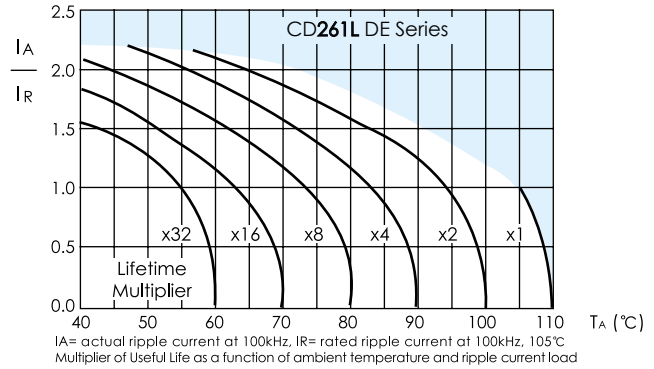
CD261L DE SERIES



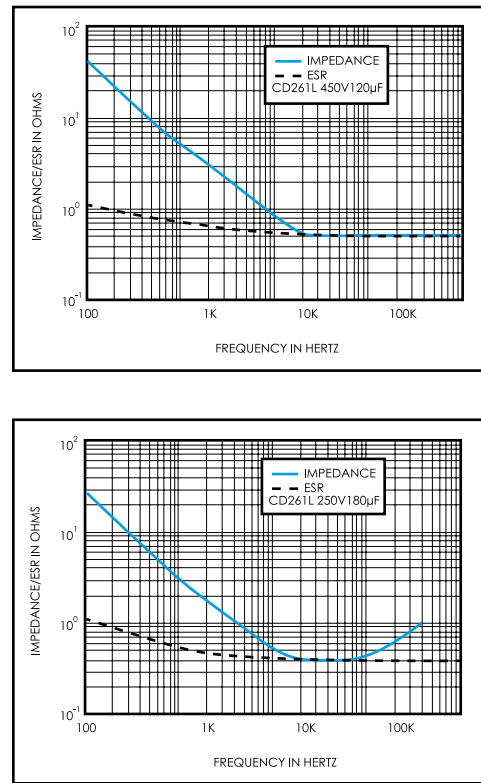
Ratings for CD261L DE Series

U _r (Surge Voltage) Code	Rated Capa- cittance	Max.ESR 20°C, 120Hz	Typ.ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size ΦD x L	P/N
(V)	(μF)	(Ω)	(Ω)	(mAms)	(mm)	-
420 (470) 2X	82	3.23	0.97	1725	12.5X50	ECR2XDE820M □□ 125050
		3.23	0.97	1600	16X31.5	ECR2XDE820M □□ 160031
		3.23	0.97	1725	16X36	ECR2XDE820M □□ 160036
		3.23	0.97	1600	18X25.5	ECR2XDE820M □□ 180025
		3.23	0.97	1825	18X31.5	ECR2XDE820M □□ 180031
		2.65	0.8	1800	16X40	ECR2XDE101M □□ 160040
	100	2.65	0.8	1755	18X31.5	ECR2XDE101M □□ 180031
		2.65	0.8	1879	18X36	ECR2XDE101M □□ 180036
		2.21	0.66	2070	16X45	ECR2XDE121M □□ 160045
	120	2.21	0.66	1913	18X36	ECR2XDE121M □□ 180036
		2.21	0.66	2093	18X40	ECR2XDE121M □□ 180040
		1.77	0.53	2115	16X50	ECR2XDE151M □□ 160050
	150	1.77	0.53	2385	18X45	ECR2XDE151M □□ 180045
		1.47	0.44	2475	18X50	ECR2XDE181M □□ 180050
	180	1.47	0.44	2475	18X50	ECR2XDE181M □□ 180050
	10	26.53	7.96	325	10X16	ECR2WDE100M □□ 100016
	15	17.68	5.31	475	10X20	ECR2WDE150M □□ 100020
		17.68	5.31	525	10X25	ECR2WDE150M □□ 100025
450 (500) 2W	18	14.74	4.42	575	10X25	ECR2WDE180M □□ 100025
	22	12.06	3.62	675	10X30	ECR2WDE220M □□ 100030
		12.06	3.62	700	12.5X20	ECR2WDE220M □□ 125020
	27	9.82	2.95	800	10X35	ECR2WDE270M □□ 100035
		9.82	2.95	725	12.5X20	ECR2WDE270M □□ 125020
		9.82	2.95	850	12.5X25	ECR2WDE270M □□ 125025
	33	8.04	2.41	875	10X35	ECR2WDE330M □□ 100035
		8.04	2.41	900	12.5X25	ECR2WDE330M □□ 125025
		8.04	2.41	900	16X20	ECR2WDE330M □□ 160020
		8.04	2.41	1000	12.5X30	ECR2WDE330M □□ 125030
	39	6.8	2.04	1000	10X40	ECR2WDE390M □□ 100040
		6.8	2.04	1075	12.5X30	ECR2WDE390M □□ 125030
		6.8	2.04	1150	12.5X35	ECR2WDE390M □□ 125035
		6.8	2.04	1000	16X20	ECR2WDE390M □□ 160020
	47	5.64	1.69	1200	10X50	ECR2WDE470M □□ 100050
		5.64	1.69	1100	12.5X30	ECR2WDE470M □□ 125030
		5.64	1.69	1200	12.5X35	ECR2WDE470M □□ 125035
		5.64	1.69	1250	16X25.5	ECR2WDE470M □□ 160025
	56	5.64	1.69	1150	18X20.5	ECR2WDE470M □□ 180020
		4.74	1.42	1250	12.5X35	ECR2WDE560M □□ 125035
		4.74	1.42	1350	12.5X40	ECR2WDE560M □□ 125040
		4.74	1.42	1463	16X25.5	ECR2WDE560M □□ 160025
	68	4.74	1.42	1250	18X20.5	ECR2WDE560M □□ 180020
		3.9	1.17	1450	12.5X40	ECR2WDE680M □□ 125040
		3.9	1.17	1525	16X31.5	ECR2WDE680M □□ 160031
		3.9	1.17	1650	16X36	ECR2WDE680M □□ 160036
	82	3.9	1.17	1525	18X25.5	ECR2WDE680M □□ 180025
		3.23	0.97	1650	12.5X45	ECR2WDE820M □□ 125045
		3.23	0.97	1750	12.5X50	ECR2WDE820M □□ 125050
		3.23	0.97	1625	16X31.5	ECR2WDE820M □□ 160031
	100	3.23	0.97	1600	18X25.5	ECR2WDE820M □□ 180025
		3.23	0.97	1825	18X31.5	ECR2WDE820M □□ 180031
		2.65	0.8	1640	16X36	ECR2WDE101M □□ 160036
		2.65	0.8	1875	16X40	ECR2WDE101M □□ 160040
	120	2.65	0.8	1687	18X31.5	ECR2WDE101M □□ 180031
		2.65	0.8	1879	18X36	ECR2WDE101M □□ 180036
		2.21	0.66	1935	18X36	ECR2WDE121M □□ 180036
	150	2.21	0.66	2093	18X40	ECR2WDE121M □□ 180040
		1.77	0.53	2150	18X40	ECR2WDE151M □□ 180040
		1.77	0.53	2250	18X45	ECR2WDE151M □□ 180045
	180	1.77	0.53	2385	18X50	ECR2WDE151M □□ 180050
		1.47	0.44	2450	18X50	ECR2WDE181M □□ 180050

Lifetime Diagram



Typical Curves



Customer products are available on request.

Part Number System for Radial

E	C	R	2	C	D	E	2	2	1	M	F	A	1	6	0	0	2	5	E	*
Capacitor Type Code	Terminal Type Code		Rated Voltage Code (V)		Series Code		Capacitance Code (μF)			Capacitance Tolerance Code (%)	Lead Form Code		Dimension Code				Sleeve Code		Special Requirement Code	
EC= Electrolytic Capacitor	Radial	R	160V	2C	CD261L DE		220 221			+20 -20	M	Taping Long Lead	FA LL	16×25.5 12.5×35	160025 125035		PET E			