ELCON

Conductive Polymer Aluminum Solid Electrolytic Capacitors

PR

Radial Lead Type,Long Life Assurance Series

- High reliability,High voltage(to50V).
- Low ESR, High ripplecurrent.
- Long life of 3000 hoursat125℃.
- Radial lead type: lead free flow soldering conditioncorrespondence.
- RoHS Compliance(2011/65/EU)

■ SPECIFICATIONS

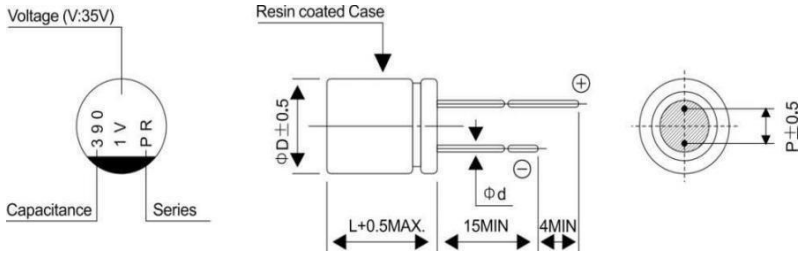
Item	Performance Characteristics		
Category Temperature Range	-55 ~ +125℃		
Rated Voltage Range	16~ 50V		
Rated Capacitance Range	22 to 390μF		
Capacitance Tolerance	± 20 % (at 120Hz , 20℃)		
Tangent of loss angle (tan δ)	Less than or equal to the specified value at 120Hz, 20℃		
ESR(※1)	Less than or equal to the specified value at 100KHz, 20℃		
Leakage Current(※2)	Less than or equal to the specified value. After 2 minutes' application of rated voltage at 20℃		
Temperature Characteristics (Max. Impedance Ratio)	Z+105℃/ Z+20℃ ≤1.25 (100kHz) Z- 55℃ / Z+20℃ ≤1.25		
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20 ℃ after the rated voltage is applied for 3000 hours at 125 ℃	Capacitance change	Within ±20% of initial value(※3)
		tan δ	150% or less of the initial specified value
		ESR(※1)	150% or less of the initial specified value
		Leakage current(※2)	less than or equal to the initial specified value
Damp Heat (Steady State)	The specifications listed at right shall be met when the capacitors are restored to 20 ℃ after the rated voltage is applied for 1000 hours at 60 ℃, 90% RH.	Capacitance change	Within ±20% of the initial value(※3)
		tan δ	150% or less of the initial specified value
		ESR(※1)	150% or less of the initial specified value
		Leakage current(※2)	less than or equal to the initial specified value
Resistance to Soldering Heat	After soldering the capacitor under the soldering conditions prescribed here as preheat at 150 to 200℃ for 60 to 180 seconds and peak temperature at 265℃ for 10 seconds or less,the capacitor shall meet the specifications listed at right, provided that its temperature profile is measured at both of terminal ends facing the soldering side.	Capacitance change	Within ±10% of the initial capacitance value(※3)
		tan δ	130% or less than the initial specified value
		ESR(※1)	130% or less than the initial specified value
		Leakage current(※2)	less than or equal to the initial specified value
Marking	Red print on the case top		

※1 ESR should be measured at both of the terminal ends closest to the capacitor body.

※2 Conditioning: If any doubt arises, measure the leakagecurrent after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minuters at 105℃

※3 Initial value: The value before test of examination of resistance to soldering.

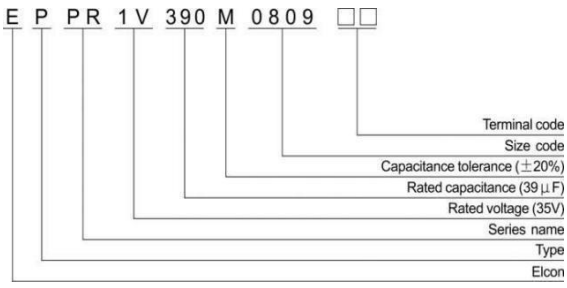
■ Dimensions



Φ x L(mm)

Size	8x9	8x12	10x13
ΦD	8.0	8.0	10.0
L	8.5	11.5	12.5
P	3.5	3.5	5.0
Φd	0.6	0.6	0.6

Type numbering system(Exp: 35V 39μF)



Voltage

V	16	20	25	35	50
Code	1C	1D	1E	1V	1H

PR Series

■ STANDARD RATINGS

Rated voltage (V)(code)	Surge Voltage (V)	Rated Cpacitance (μF)	Case Size ΦD x L(mm)	tan δ	Leakage Current (μA)	ESR(mΩ) (at 100kHz 20℃)	Rated Ripple (mArms)		Part Number
							≤105℃(*3)	105℃≤125℃(*3)	
6.3 (0J)		100	5x8	0.12	63	18	1900	730	EPPR0J101M0508
		330	5x8	0.12	208	14	2300	880	EPPR0J331M0508
		820	6.3x11	0.12	516	12	4800	1846	EPPR0J821M6311
		1500	8x12	0.12	945	12	4000	1535	EPPR0J152M0812
		2200	10x12	0.12	1386	10	5600	2150	EPPR0J222M1012
10V (1A)		470	8X8	0.12	470	15	4500	1800	EPPR1A471M0808
16 (1C)	18.4	100	5x8	0.12	160	13	2000	770	EPPR1C101M0508
		150	8x9	0.12	240	26	2100	810	EPPR1C151M0809
		180	6.3x8	0.12	288	26	2100	810	EPPR1C181M6308
		220	8x12	0.12	352	25	2400	930	EPPR1C221M0812
		270	8X8	0.12	423	22	3300	1040	EPPR1C271M0808
		330	8x8	0.12	528	13	4700	1570	EPPR1C331M0808
		390	10x13	0.12	624	23	2900	1130	EPPR1C391M1013
		1000	10X12	0.12	1600	12	4500	1730	EPPR1C102M1012
		1000	10x13	0.12	1600	12	4500	1730	EPPR1C102M1013
20 (1D)	23	120	8x9	0.12	240	27	2000	800	EPPR1D121M0809
		150	8x12	0.12	300	26	2300	910	EPPR1D151M0812
		270	10x13	0.12	540	24	2800	1110	EPPR1D271M1013
25 (1E)	28.7	47	6.3x8	0.12	117	48	2300	890	EPPR1E470M6308
		82	8x9	0.12	205	28	2000	780	EPPR1E820M0809
		100	6.3X8	0.12	250	30	2500	961	EPPR1E101M6308
		120	8x12	0.12	300	27	2300	890	EPPR1E121M0812
		180	10x13	0.12	450	25	2800	1080	EPPR1E181M1013
		470	8X12	0.12	1175	20	2800	1080	EPPR1E471M0812
		560	6.3x16	0.12	1400	28	3600	1390	EPPR1E561M6316
		560	8x12	0.12	1400	20	4250	1700	EPPR1E561M0812
		680	10X16	0.12	1700	16	4700	1880	EPPR1E681M1016
		680	10X12.5	0.12	1700	13	4250	1635	EPPR1E680M1012
		820	8x16	0.12	2050	20	4250	1700	EPPR1E821M0816
		1000	6.5x18	0.12	2500	20	3500	1400	EPPR1E102M6518
		1000	8X16	0.12	2500	25	4500	1730	EPPR1E102M0816
		1000	10x16	0.12	2500	14	5000	2000	EPPR1E102M1016
		1500	10x16	0.12	3750	14	5000	2000	EPPR1E152M1016
35 (1V)	40.2	39	8x9	0.12	136	33	1800	720	EPPR1V390M0809
		56	8x12	0.12	196	31	2100	830	EPPR1V560M0812
		100	6.3X8	0.12	350	28	2200	846	EPPR1E101M6308
		100	10x13	0.12	350	28	2700	1040	EPPR1V101M1013
50 (1H)	57.5	22	8x9	0.12	110	35	1800	700	EPPR1H220M0809
		27	8x12	0.12	135	33	2000	810	EPPR1H270M0812
		47	10x13	0.12	235	29	2600	1020	EPPR1H470M1013
		100	8X8	0.12	500	32	2250	900	EPPR1H101M0808
		120	8X12	0.12	600	32	2250	900	EPPR1H121M0812
		120	10X12	0.12	600	20	4300	1350	EPPR1H121M1012
		220	10X12	0.12	1100	28	2620	1040	EPPR1H221M1012