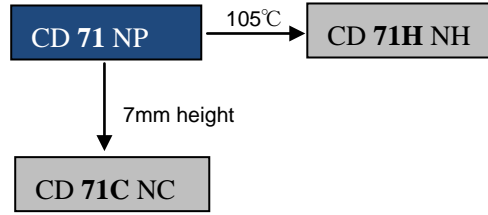


CD 71 NP Series



2000h at 85°C

- Load life of 2000 hours at 85°C
- Bi-polar standard
- Ideal for inconsistent polarity circuits



Items	Characteristics																													
Operating Temperature Range(°C)	-40 ~ +85																													
Capacitance Tolerance (20°C,120Hz)	±20%																													
Leakage Current (µA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.03CV 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> <th>160</th> </tr> </thead> <tbody> <tr> <td>Tan δ(max)</td> <td>0.24</td> <td>0.24</td> <td>0.20</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.15</td> </tr> </tbody> </table>	Rated Voltage(V)	6.3	10	16	25	35	50	63	100	160	Tan δ(max)	0.24	0.24	0.20	0.20	0.16	0.14	0.12	0.10	0.15									
	Rated Voltage(V)	6.3	10	16	25	35	50	63	100	160																				
Tan δ(max)	0.24	0.24	0.20	0.20	0.16	0.14	0.12	0.10	0.15																					
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> <th>160</th> </tr> </thead> <tbody> <tr> <td>Z_{-25°C}/Z_{+20°C}</td> <td>4</td> <td>3</td> <td colspan="6">2</td> <td>4</td> </tr> <tr> <td>Z_{-40°C}/Z_{+20°C}</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td colspan="3">3</td> <td>-</td> </tr> </tbody> </table>	Rated Voltage(V)	6.3	10	16	25	35	50	63	100	160	Z _{-25°C} /Z _{+20°C}	4	3	2						4	Z _{-40°C} /Z _{+20°C}	10	8	6	4	3			-
	Rated Voltage(V)	6.3	10	16	25	35	50	63	100	160																				
	Z _{-25°C} /Z _{+20°C}	4	3	2						4																				
Z _{-40°C} /Z _{+20°C}	10	8	6	4	3			-																						

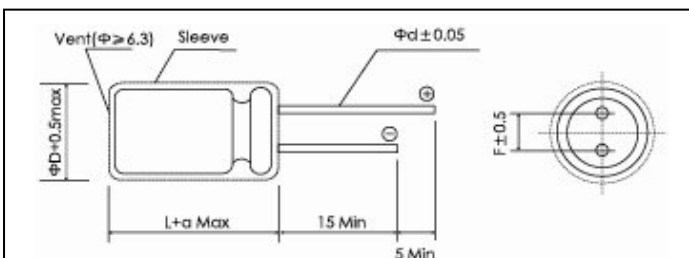
	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	3000h	≥50000h	2000h	2000h	1000h
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change	Within ±30% of initial value		Within ±20% of initial value	Within ±20% of initial value	Within ±20% of initial value
Dissipation Factor	Not more than 300% of specified value		Not more than 150% of specified value	Not more than 150% of specified value	Not more than 150% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U _R I _R 85°C	U _R 1.2 x I _R 40°C	U _R I _R 85°C	U _R I _R = 0 85°C	U _R = 0 I _R = 0 85°C After test: U _R to be applied for 30min >24h before measurement

Note:The life test excluding shelf life should be conducted with the polarity inverted every 250hrs.

Dimensions

mm

Frequency Coefficient



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 Rated voltage(v)	50-60Hz	120Hz	1kHz	10kHz	100kHz
6.3~16	0.80	1.0	1.1	1.2	1.2
25~35	0.80	1.0	1.5	1.7	1.7
50~160	0.80	1.0	1.6	1.9	1.9

Temperature Coefficient

Temperature(°C)	+70	+85
Coefficient	1.35	1

Ratings for CD 71 NP Series

U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD×L	P/N
(V)	(μF)	(Ω)	(mA _{rms})	(mm)	-
6.3 (7.2) 0J	33	9.65	58	5×11.5	ECR0JNP330M□□050011
	47	6.78	69	5×11.5	ECR0JNP470M□□050011
	100	3.18	115	6.3×11.5	ECR0JNP101M□□063011
	220	1.45	202	8×11.5	ECR0JNP221M□□080011
	330	0.97	247	8×11.5	ECR0JNP331M□□080011
	470	0.68	350	10×12.5	ECR0JNP471M□□100012
	1000	0.32	611	10×20	ECR0JNP102M□□100020
	2200	0.16	1090	12.5×25	ECR0JNP222M□□125025
	3300	0.11	1490	16×25	ECR0JNP332M□□160025
	4700	0.08	1880	16×31.5	ECR0JNP472M□□160031
10 (13) 1A	22	14	52	5×11.5	ECR1ANP220M□□050011
	33	9.65	63	5×11.5	ECR1ANP330M□□050011
	47	6.78	75	5×11.5	ECR1ANP470M□□050011
	100	3.18	126	6.3×11.5	ECR1ANP101M□□063011
	220	1.45	221	8×11.5	ECR1ANP221M□□080011
	330	0.97	322	10×12.5	ECR1ANP331M□□100012
	470	0.68	420	10×16	ECR1ANP471M□□100016
	1000	0.32	767	12.5×20	ECR1ANP102M□□125020
	2200	0.16	1380	16×25	ECR1ANP222M□□160025
	3300	0.11	1760	16×31.5	ECR1ANP332M□□160031
16 (20) 1C	4700	0.08	2280	18×35.5	ECR1ANP472M□□180035
	10	26	39	5×11.5	ECR1CNP100M□□050011
	22	12	58	5×11.5	ECR1CNP220M□□050011
	33	8.04	71	5×11.5	ECR1CNP330M□□050011
	47	5.65	97	6.3×11.5	ECR1CNP470M□□063011
	100	2.65	167	8×11.5	ECR1CNP101M□□080011
	220	1.21	294	10×12.5	ECR1CNP221M□□100012
	330	0.8	394	10×16	ECR1CNP331M□□100016
	470	0.56	513	10×20	ECR1CNP471M□□100020
	1000	0.27	935	12.5×25	ECR1CNP102M□□125025
25 (32) 1E	2200	0.13	1660	16×31.5	ECR1CNP222M□□160031
	4.7	56	28	5×11.5	ECR1ENP4R7M□□050011
	10	26	40	5×11.5	ECR1ENP100M□□050011
	22	12	60	5×11.5	ECR1ENP220M□□050011
	33	8.04	84	6.3×11.5	ECR1ENP330M□□063011
	47	5.65	100	6.3×11.5	ECR1ENP470M□□063011
	100	2.65	204	10×12.5	ECR1ENP101M□□100012
	220	1.21	332	10×16	ECR1ENP221M□□100016
	330	0.8	444	10×20	ECR1ENP331M□□100020
	470	0.56	607	12.5×20	ECR1ENP471M□□125020
35 (44) 1V	1000	0.27	1120	16×25	ECR1ENP102M□□160025
	4.7	45	28	5×11.5	ECR1VNP4R7M□□050011
	10	21	42	5×11.5	ECR1VNP100M□□050011
	22	9.65	71	6.3×11.5	ECR1VNP220M□□063011
	33	6.43	87	6.3×11.5	ECR1VNP330M□□063011
	47	4.52	122	8×11.5	ECR1VNP470M□□080011
	100	2.12	212	10×12.5	ECR1VNP101M□□100012
	220	0.97	375	10×20	ECR1VNP221M□□100020
	330	0.64	526	12.5×20	ECR1VNP331M□□125020
	470	0.45	685	12.5×25	ECR1VNP471M□□125025
1000	0.21	1270	16×31.5	ECR1VNP102M□□160031	

Ratings for CD 71 NP Series

U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD×L	P/N
(V)	(μF)	(Ω)	(mA _{rms})	(mm)	-
50 (63) 1H	0.1	1857	4	5×11.5	ECR1HNP0R1M□□050011
	0.22	844	7	5×11.5	ECR1HNPR22M□□050011
	0.33	562	8	5×11.5	ECR1HNPR33M□□050011
	0.47	395	10	5×11.5	ECR1HNPR47M□□050011
	1	185	14	5×11.5	ECR1HNP010M□□050011
	2.2	84	21	5×11.5	ECR1HNP2R2M□□050011
	3.3	56	26	5×11.5	ECR1HNP3R3M□□050011
	4.7	39	31	5×11.5	ECR1HNP4R7M□□050011
	10	18	45	5×11.5	ECR1HNP100M□□050011
	22	8	77	6.3×11.5	ECR1HNP220M□□063011
	33	5.6	111	8×11.5	ECR1HNP330M□□080011
	47	3.9	157	10×12.5	ECR1HNP470M□□100012
	100	1.8	273	10×20	ECR1HNP101M□□100020
	220	0.84	506	12.5×25	ECR1HNP221M□□125025
	330	0.56	620	12.5×25	ECR1HNP331M□□125025
470	0.4	861	16×25	ECR1HNP471M□□160025	
63 (79) 1J	2.2	72	23	5×11.5	ECR1JNP2R2M□□050011
	3.3	48	28	5×11.5	ECR1JNP3R3M□□050011
	4.7	33	34	5×11.5	ECR1JNP4R7M□□050011
	10	15	57	6.3×11.5	ECR1JNP100M□□063011
	22	7	89	8×11.5	ECR1JNP220M□□080011
	33	4.8	144	10×12.5	ECR1JNP330M□□100012
	47	3.3	188	10×16	ECR1JNP470M□□100016
	100	1.5	343	12.5×20	ECR1JNP101M□□125020
	220	0.72	645	16×25	ECR1JNP221M□□160025
100 (125) 2A	0.1	1326	5	5×11.5	ECR2ANP0R1M□□050011
	0.22	603	8	5×11.5	ECR2ANPR22M□□050011
	0.33	402	9	5×11.5	ECR2ANPR33M□□050011
	0.47	282	11	5×11.5	ECR2ANPR47M□□050011
	1	132	16	5×11.5	ECR2ANP010M□□050011
	2.2	60	24	5×11.5	ECR2ANP2R2M□□050011
	3.3	40	34	6.3×11.5	ECR2ANP3R3M□□063011
	4.7	28	41	6.3×11.5	ECR2ANP4R7M□□063011
	10	13	70	8×11.5	ECR2ANP100M□□080011
	22	6	136	10×12.5	ECR2ANP220M□□100012
	33	4	181	10×16	ECR2ANP330M□□100016
	47	2.82	248	12.5×20	ECR2ANP470M□□125020
	100	1.33	458	16×25	ECR2ANP101M□□160025
	220	0.60	837	18×35.5	ECR2ANP221M□□180035
	160 (200) 2C	3.3	60	49	10×16
4.7		42	59	10×16	ECR2CNP4R7M□□100016
10		19	109	12.5×20	ECR2CNP100M□□125020
22		9	177	12.5×25	ECR2CNP220M□□125025
33		6	240	16×25	ECR2CNP330M□□160025
47		4.23	329	16×35.5	ECR2CNP470M□□160035
100		1.99	425	18×35.5	ECR2CNP101M□□180035

Customer products are available on request.

Lifetime Diagram

