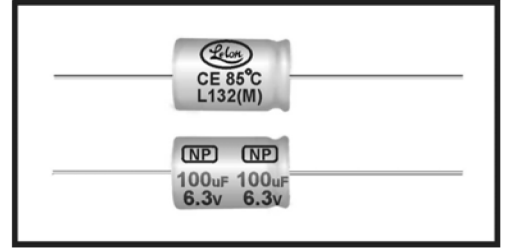


## CE02 Type

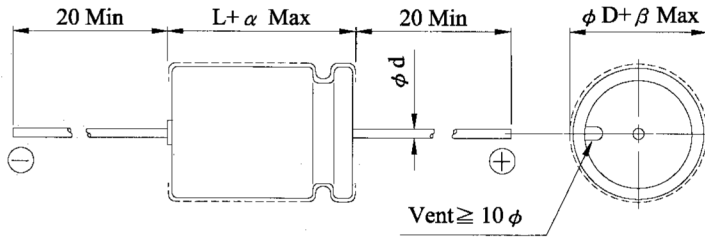
### Features

- 85°C, 1000 hours assured, standard non-polarized series
- Suitable for use in circuits which have a reversed or unknown polarity



### SPECIFICATIONS

Items	Performance																													
Operating Temperature Range	-40°C ~ +85°C																													
Capacitance Tolerance	±20% (at 120Hz, 20°C)																													
Leakage Current (at 20°C)	$I = 0.03CV$ or $3 (\mu A)$ whichever is greater (after 2 minutes) Where, C= rated capacitance in $\mu F$ . V = rated DC working voltage in V.																													
Dissipation Factor (Tan $\delta$ at 120Hz, 20°C)	<table border="1"> <thead> <tr> <th>Rated Voltage</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 <math>\delta</math> (max)</td> <td>0.25</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> </tr> </tbody> </table> When the capacitance exceeds 1000 $\mu F$ , 0.02 shall be added every 1000 $\mu F$ increase.	Rated Voltage	6.3	10	16	25	35	50	63	100	Tan $\delta$ (max)	0.25	0.22	0.18	0.16	0.14	0.12	0.10	0.09											
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Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below. <table border="1"> <thead> <tr> <th colspan="2">Rated Voltage</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 rowspan="2">Impedance Ratio</td> <td>Z(-25°C)/Z(+20°C)</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>8</td> <td>6</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated Voltage		6.3	10	16	25	35	50	63	100	Impedance Ratio	Z(-25°C)/Z(+20°C)	4	3	3	2	2	2	2	2	Z(-40°C)/Z(+20°C)	8	6	6	4	4	3	3	3
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Load Life Test (After application of the rated voltage at 85°C, the polarity inverted every 250hrs.)	<table border="1"> <tbody> <tr> <td>Test Time</td> <td>1000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </tbody> </table> * The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 1000 hrs at 85°C.	Test Time	1000 Hrs	Capacitance Change	Within ±20% of initial value	Dissipation Factor	Less than 200% of specified value	Leakage Current	Within specified value																					
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Standards	Satisfies Characteristic W of JIS C 5141																													

**CE02 Type**
**DIAGRAM OF DIMENSIONS**


Unit: mm

**LEAD DIAMETER**

$\phi D$	6.3	8	10	13	16	18
$\phi d$	0.6			0.8		
$\alpha$	1.5			2.0		
$\beta$	0.5			1.0		

**DIMENSION & PERMISSIBLE RIPPLE CURRENT**

 Dimension:  $\phi D \times L$ (mm)

Ripple Current: mA/rms at 120 Hz, 85°C

$\mu F$	V.DC Contents	6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
		$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA
0.1	0R1											6.3 × 13	5	6.3 × 13	5	6.3 × 13	5
0.22	R22											6.3 × 13	7	6.3 × 13	8	6.3 × 13	8
0.33	R33											6.3 × 13	9	6.3 × 13	10	6.3 × 13	10
0.47	R47											6.3 × 13	10	6.3 × 13	12	6.3 × 13	12
1	010											6.3 × 13	16	6.3 × 13	18	6.3 × 13	18
2.2	2R2											6.3 × 13	23	6.3 × 13	27	6.3 × 13	27
3.3	3R3											6.3 × 13	29	6.3 × 13	31	6.3 × 13	35
4.7	4R7											6.3 × 13	34	6.3 × 13	40	6.3 × 13	42
10	100									6.3 × 13	46	6.3 × 13	54	8 × 13	59	8 × 16	69
22	220					6.3 × 13	61	6.3 × 13	69	6.3 × 13	74	8 × 13	89	8 × 16	97	10 × 21	120
33	330			6.3 × 13	71	6.3 × 13	80	8 × 13	85	8 × 16	101	10 × 16	109	10 × 17	139	10 × 21	153
47	470			6.3 × 13	85	8 × 13	95	8 × 13	113	8 × 16	120	10 × 17	152	10 × 21	174	13 × 22	203
100	101	6.3 × 13	118	8 × 13	147	8 × 16	155	10 × 17	192	10 × 21	205	10 × 21	232	13 × 22	269	16 × 27	317
220	221	8 × 16	195	8 × 16	254	10 × 17	268	10 × 21	298	13 × 22	338	13 × 27	381	16 × 27	447	16 × 37	501
330	331	8 × 16	239	10 × 17	312	10 × 21	344	13 × 22	387	13 × 27	433	16 × 27	500	16 × 33	567		
470	471	10 × 17	333	10 × 21	389	13 × 22	436	13 × 27	483	16 × 27	552	16 × 33	618	18 × 42	792		
1000	102	13 × 21	508	13 × 22	603	13 × 27	664	16 × 27	781	16 × 37	857	18 × 42	1054				
2200	222	13 × 27	836	16 × 28	1000	16 × 37	1121	18 × 42	1355								