

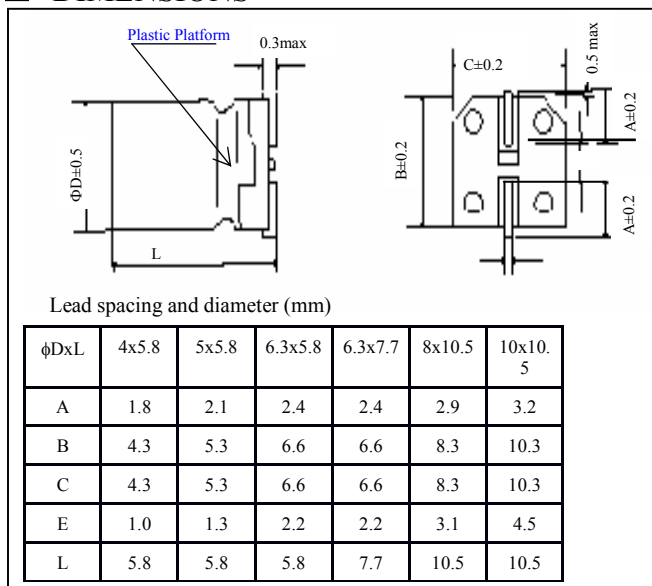
- Extra low impedance with temperature range  $-55^{\circ}\sim+105^{\circ}$  and load life of 2000~3000 hrs
- Impedance 5~25% less than RVE
- Lead free soldering product is available subject to customers request



## SPECIFICATIONS

Item	Characteristics																										
Operating Temperature Range (°C)	$-55\sim+105^{\circ}\text{C}$																										
Leakage Current ( $\mu\text{A}$ )	After 2 minutes application of rated voltage, leakage current is not more than 0.002 CV or 0.5 $\mu\text{A}$ , whichever is greater.																										
Capacitance Tolerance (20°C, 120 Hz)	$\pm 20\%$ at 120 Hz, 20°C																										
Surge Voltage & Max Tan $\delta$ 120Hz, Temperature 20°C	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>Tan <math>\delta</math></td> <td>0.26</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	Tan $\delta$	0.26	0.19	0.16	0.14	0.12														
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Low Temperature Stability	<table border="1"> <tr> <td colspan="2">Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td rowspan="3">Impedance Ratio ZT/Z20(max)</td> <td>Z-25°C/Z+20°C</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>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage (V)		6.3	10	16	25	35	Impedance Ratio ZT/Z20(max)	Z-25°C/Z+20°C	2	2	2	2	2	Z-40°C/Z+20°C	3	3	3	3	3	Z-40°C/Z+20°C	4	4	4	3	3
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Load Life (85°C)	<table border="1"> <tr> <td>Capacitance Change</td> <td>Within <math>\pm 30\%</math> of initial value</td> </tr> <tr> <td>Tan <math>\delta</math></td> <td>200 or less of Initial specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance Change	Within $\pm 30\%$ of initial value	Tan $\delta$	200 or less of Initial specified value	Leakage Current	Initial specified value or less																				
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Leakage Current	Initial specified value or less																										
Shelf Life	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for load life characteristics listed above.																										
Resistance to soldering heat	<p>After re-flow soldering according to re-flow soldering condition and restored at room temperature, they meet the characteristics requirements listed at right</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>Within <math>\pm 10\%</math> of initial value</td> </tr> <tr> <td>Tan <math>\delta</math></td> <td>High specified value or less</td> </tr> <tr> <td>Leakage Current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance Change	Within $\pm 10\%$ of initial value	Tan $\delta$	High specified value or less	Leakage Current	Initial specified value or less																				
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## DIMENSIONS



## MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient					
Frequency	50Hz	120Hz	300Hz	1kHz	10kHz
Coefficient	0.35	0.50	0.64	0.83	1.00

## ■ Standard Ripple Current

WV		6.3			10			16		
CAP (μF)										
10	10R							4x5.8	1.35	90
15	15R							4x5.8	1.35	90
22	22R	4x5.8	1.35	90	45.8	1.35	90	5x5.8 4x5.8	0.70 (1.35)	160 (90)
27	27R	4x5.8	1.35	90	5x5.8 (4x5.8)	0.70 (1.35)	160 (90)	5x5.8	0.70	160
33	33R	5x5.8 4x5.8	0.70 (1.35)	160 (90)	5x5.8 (4x5.8)	0.70 (1.35)	160 (90)	6.3x5.8 5x5.8	0.36 (0.70)	240 (160)
47	47R	5x5.8 4x5.8	0.70 (1.35)	160 (90)	6.3x5.8 (5x5.8)	0.36 (0.70)	240 (160)	6.3x5.8 5x5.8	0.36 (0.70)	240 (160)
56	56R	5x5.8	0.70	160	6.3x5.8	0.36	240	6.3x5.8	0.36	240
68	68R	6.3x5.8 5x5.8	0.36 (0.70)	240 (160)	6.3x5.8	0.36	240	6.3x7.7 6.3x5.8	0.26 (0.36)	300 (240)
100	101	6.3x5.8 5x5.8	0.36 (0.70)	240 (160)	6.3x7.7 (6.3x5.8)	0.26 (0.36)	300 (240)	6.3x7.7 6.3x5.8	0.26 (0.36)	300 (240)
150	151	6.3x5.8	0.36	240	6.3x7.7	0.26	300	6.3x7.7	0.26	300
220	221	6.3x7.7 6.3x5.8	0.26 (0.36)	300 (240)	6.3x7.7	0.26	300	8x10.5 6.3x7.7	0.16 (0.26)	600 (300)
330	331	6.3x7.7	0.26	300	8x10.5	0.16	600	10x10.5 8x10.5	0.08 (0.16)	850 (600)
470	471	8x10.5	0.16	600	8x10.5	0.16	600	10x10.5 8x10.5	0.08 (0.16)	850 (600)
680	681	10x10.5 8x10.5	0.08 (0.16)	850 (600)	10x10.5	0.08	850	10x10.5	0.08	850
1000	102	10x10.5 8x10.5	0.08 0.16	850 (600)	10x10.5	0.008	850			
1500	152	10x10.5	0.08	850						

## ■ Standard Ripple Current

WV		25			35		
CAP (μF)							
4.7	4R7				4x5.8	1.35	90
10	10R	4x5.8	1.35	90	5x5.8 4x5.8	0.70 (1.35)	160 (90)
15	15R	5x5.8	0.70	160	5x5.8	0.70	160
22	22R	6.3x5.8 5x5.8	0.36 (0.70)	240 (160)	6.3x5.8 5x5.8	0.36 (0.70)	240 (160)
27	27R	6.3x5.8 5x5.8	0.36 (0.70)	240 (160)	6.3x5.8	0.36	240
33	33R	6.3x5.8 5x5.8	0.36 (0.70)	240 (160)	6.3x5.8	0.36	240
47	47R	6.3x7.7 6.3x5.8	0.26 (0.36)	300 (240)	6.3x7.7 6.3x5.8	0.26 (0.36)	300 (240)
56	56R	6.3x7.7 6.3x5.8	0.26 (0.36)	300 (240)	6.3x7.7	0.26	300
68	68R	6.3x7.7	0.26	300	6.3x7.7	0.26	300
100	101	6.3x7.7	0.26	300	8x10.5	0.16	600
150	151	8x10.5 6.3x7.7	0.16 (0.26)	600 (300)	10x10.5	0.08 (0.16)	850 (600)
220	221	8x10.5	0.16	600	10x10.5	0.08 (0.16)	850 (600)
330	331	10x10.5 8x10.5	0.08 (0.16)	850 (600)	10x10.5	0.08	850
470	471	10x10.5	0.08	850	Case Size	Impedance	Allowable Ripple