

TZV SERIES
105°C Low Impedance, Lead Free Reflow Soldering.
◆FEATURES

- Load Life : 105°C 2000 hours.
- Lead free reflow soldering is available. •RoHS compliance.
- Available for high density mounting.
- Low impedance at 100kHz with selected materials.

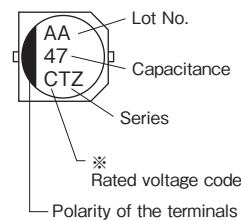

◆SPECIFICATIONS

Items	Characteristics																												
Category Temperature Range	-55~+105°C																												
Rated Voltage Range	6.3~50V.DC																												
Capacitance Tolerance	±20% (20°C, 120Hz)																												
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) I=(μA) Leakage Current C=(μF) Rated Capacitance V=(V) Rated Voltage																												
(tanδ) Dissipation Factor(MAX)	<table border="1" style="display: inline-table; margin-right: 20px;"> <tr> <td>Rated Voltage</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tanδ</td> <td>0.26</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </table> (20°C, 120Hz)	Rated Voltage	6.3	10	16	25	35	50	tanδ	0.26	0.19	0.16	0.14	0.12	0.10														
Rated Voltage	6.3	10	16	25	35	50																							
tanδ	0.26	0.19	0.16	0.14	0.12	0.10																							
Endurance	After applying rated voltage with rated ripple current for 2000 hours at 105°C, the capacitors shall meet the following requirements. <table border="1" style="margin-top: 10px;"> <tr> <td>Capacitance Change</td> <td>Within ±30% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table>	Capacitance Change	Within ±30% of the initial value.	Dissipation Factor	Not more than 200% of the specified value.	Leakage Current	Not more than the specified value.																						
Capacitance Change	Within ±30% of the initial value.																												
Dissipation Factor	Not more than 200% of the specified value.																												
Leakage Current	Not more than the specified value.																												
Low Temperature Stability Impedance Ratio(MAX)	<table border="1" style="display: inline-table; margin-right: 20px;"> <tr> <td>Rated Voltage</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>2</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> <td>3</td> </tr> <tr> <td>Z(-55°C)/Z(20°C)</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table> (120Hz)	Rated Voltage	6.3	10	16	25	35	50	Z(-25°C)/Z(20°C)	2	2	2	2	2	2	Z(-40°C)/Z(20°C)	3	3	3	3	3	3	Z(-55°C)/Z(20°C)	4	4	4	3	3	3
Rated Voltage	6.3	10	16	25	35	50																							
Z(-25°C)/Z(20°C)	2	2	2	2	2	2																							
Z(-40°C)/Z(20°C)	3	3	3	3	3	3																							
Z(-55°C)/Z(20°C)	4	4	4	3	3	3																							

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency Coefficient

(Hz) Frequency		120	1k	10k	100k≤
Coefficient	4.7μF	0.42	0.60	0.80	1.00
	10~33μF	0.45	0.75	0.90	1.00
	47~100μF	0.50	0.80	0.95	1.00
	220~1000μF	0.60	0.85	0.95	1.00

◆MARKING


※ Voltage Code

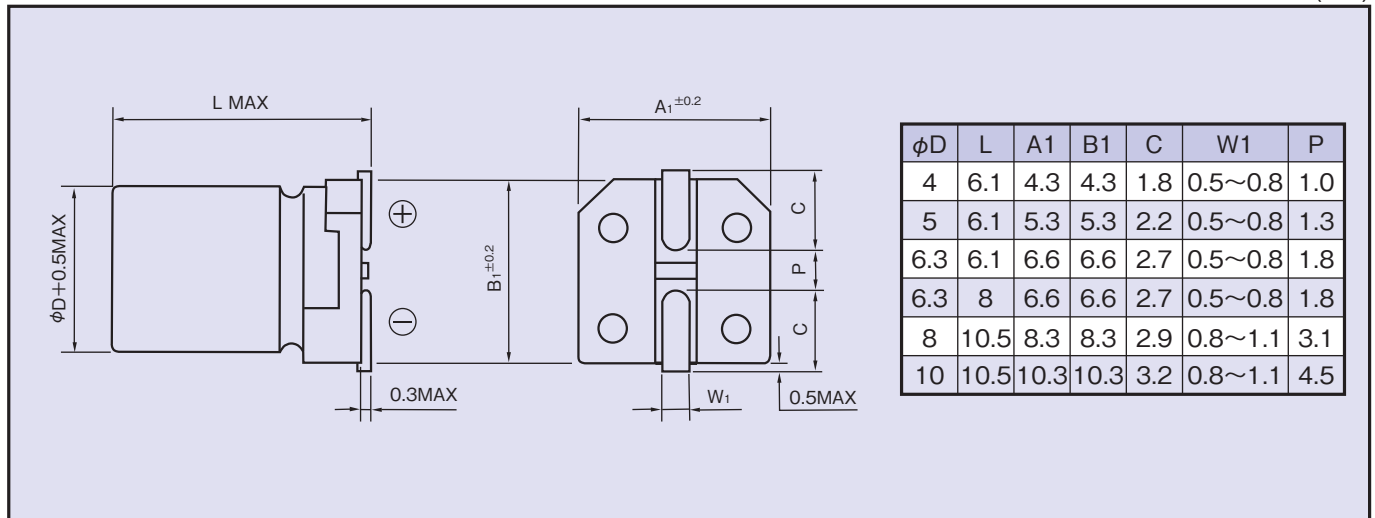
Rated Voltage	6.3	10	16	25	35	50
Rated Voltage code	j	A	C	E	V	H

◆PART NUMBER

□□□	TZV	□□□□□	M	□□□	D×L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Case Size

◆ **DIMENSIONS**

(mm)



◆ **STANDARD SIZE**

Size φD×L(mm), Ripple Current (mA r.m.s./105°C, 100kHz), Impedance(Ω MAX/20°C, 100kHz)

Cap(μF) \ WV (V.DC)	6.3 (0J)			10 (1A)			16 (1C)		
	Size	Ripple	Impedance	Size	Ripple	Impedance	Size	Ripple	Impedance
10							4×6.1	90	1.35
22	4×6.1	90	1.35				4×6.1	90	1.35
							5×6.1	170	0.70
33				4×6.1	90	1.35	5×6.1	170	0.70
47	4×6.1	90	1.35				5×6.1	170	0.70
	5×6.1	170	0.70				6.3×6.1	250	0.36
100	5×6.1	170	0.70				6.3×6.1	250	0.36
	6.3×6.1	250	0.36				6.3×8	300	0.34
220	6.3×6.1	250	0.36	6.3×8	300	0.34	6.3×8	300	0.34
	6.3×8	300	0.34						
330	6.3×8	300	0.34				8×10.5	600	0.16
470				8×10.5	600	0.16	8×10.5	600	0.16
680				8×10.5	600	0.16	10×10.5	850	0.08
1000	8×10.5	600	0.16	10×10.5	850	0.08			

Cap(μF) \ WV (V.DC)	25 (1E)			35 (1V)			50 (1H)		
	Size	Ripple	Impedance	Size	Ripple	Impedance	Size	Ripple	Impedance
4.7				4×6.1	90	1.45	4×6.1	60	2.90
10				4×6.1	90	1.45	5×6.1	85	1.52
				5×6.1	170	0.70	6.3×6.1	165	0.88
22				5×6.1	170	0.70	6.3×6.1	165	0.88
				6.3×6.1	250	0.36			
33	5×6.1	170	0.70	6.3×6.1	250	0.36	6.3×8	195	0.68
	6.3×6.1	250	0.36						
47	6.3×6.1	250	0.36	6.3×6.1	250	0.36	6.3×8	195	0.68
				6.3×8	300	0.34			
				6.3×8	300	0.34			
100	6.3×8	300	0.34	8×10.5	600	0.16	8×10.5	350	0.34
				8×10.5	600	0.16			
220	8×10.5	600	0.16	8×10.5	600	0.16	10×10.5	670	0.18
330	8×10.5	600	0.16	10×10.5	850	0.09			
470	10×10.5	850	0.09						