

TPV SERIES

105°C Low ESR, Miniaturized, Lead Free Reflow Soldering

◆FEATURES

- Load Life 105°C 2000 hours.
- Lead free reflow soldering is available.
- Available for high density mounting.
- Prescribe ESR value at 100 kHz.
- RoHS compliance.



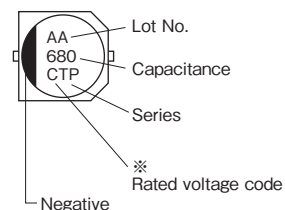
◆SPECIFICATIONS

Items	Characteristics																								
Category Temperature Range	-55~+105℃																								
Rated Voltage Range	6.3~35Vdc																								
Capacitance Tolerance	±20% (20℃,120Hz)																								
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current (μA) C=Capacitance (μF) V=Rated Voltage (Vdc)																								
(tanδ) Dissipation Factor(MAX)	<table><tr><td>Rated Voltage (Vdc)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</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></tr></table> (20℃,120Hz) When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.	Rated Voltage (Vdc)	6.3	10	16	25	35	tanδ	0.26	0.19	0.16	0.14	0.12												
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Endurance	After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirements. <table><tr><td>Capacitance Change</td><td>Within ±30% of the initially measured 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 initially measured value.	Dissipation Factor	Not more than 200% of the specified value.	Leakage Current	Not more than the specified value.																		
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Low Temperature Stability Impedance Ratio(MAX)	<table><tr><td>Rated Voltage (Vdc)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><td>Z(-55℃)/Z(20℃)</td><td>4</td><td>4</td><td>4</td><td>3</td><td>3</td></tr></table> (120Hz)	Rated Voltage (Vdc)	6.3	10	16	25	35	Z(-25℃)/Z(20℃)	2	2	2	2	2	Z(-40℃)/Z(20℃)	3	3	3	3	3	Z(-55℃)/Z(20℃)	4	4	4	3	3
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Z(-40℃)/Z(20℃)	3	3	3	3	3																				
Z(-55℃)/Z(20℃)	4	4	4	3	3																				

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency (Hz)	120	1k	10k	100k≤
Coefficient	0.60	0.80	0.95	1.00

◆MARKING



※Voltage code

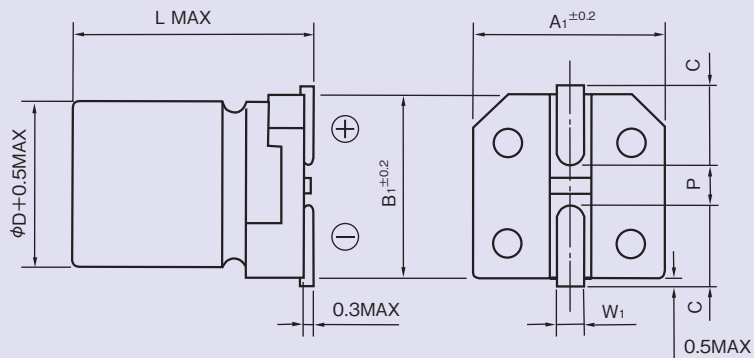
Rated Voltage (Vdc)	6.3	10	16	25	35
Voltage code	j	A	C	E	V

◆PART NUMBER

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

◆ DIMENSIONS

(mm)



ϕD	L	A1	B1	C	W1	P
8	10.5	8.3	8.3	2.9	0.8~1.1	3.1
10	10.5	10.3	10.3	3.2	0.8~1.1	4.5

◆ STANDARD SIZE

Size $\phi D \times L$ (mm), Rated Ripple Current (mA r.m.s./105°C, 100kHz), ESR (Ω MAX/20°C, 100kHz)

Vdc	Cap (μF)	Size ($\phi D \times L$)	Ripple	ESR
6.3	1200	8×10.5	850	0.080
	2200	10×10.5	1190	0.060
10	1000	8×10.5	850	0.080
	1500	10×10.5	1190	0.060
16	680	8×10.5	850	0.080
	1000	10×10.5	1190	0.060
25	470	8×10.5	850	0.080
	820	10×10.5	1190	0.060
35	330	8×10.5	850	0.080
	560	10×10.5	1190	0.060