



**TFV SERIES**

105°C Low Impedance, Lead Free Reflow Soldering.

◆ **FEATURES**

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



◆ **SPECIFICATIONS**

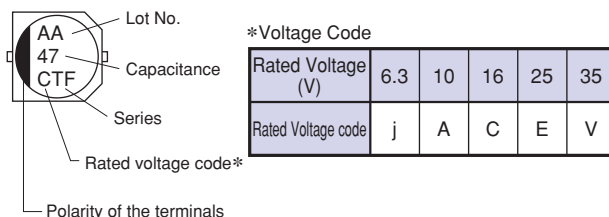
Items	Characteristics																								
Category Temperature Range	-55 ~ +105°C																								
Rated Voltage Range	6.3~35V.DC																								
Capacitance Tolerance	± 20%(20°C,120Hz)																								
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)																								
Dissipation Factor(MAX) (tanδ)	<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> </tr> </thead> <tbody> <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> </tbody> </table> (20°C,120Hz)	Rated Voltage (V)	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 with rated ripple current for 2000 hrs at 105°C, the capacitors shall meet the following requirements. <table border="1"> <tbody> <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> </tbody> </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.																		
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Low Temperature Stability Impedance Ratio(MAX)	<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> </tr> </thead> <tbody> <tr> <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(-55°C)/Z(20°C)</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </tbody> </table> (120Hz)	Rated Voltage (V)	6.3	10	16	25	35	Z(-25°C)/Z(20°C)	2	2	2	2	2	Z(-40°C)/Z(20°C)	3	3	3	3	3	Z(-55°C)/Z(20°C)	4	4	4	3	3
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Z(-40°C)/Z(20°C)	3	3	3	3	3																				
Z(-55°C)/Z(20°C)	4	4	4	3	3																				

◆ **MULTIPLIER FOR RIPPLE CURRENT**

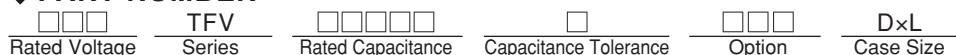
Frequency coefficient

Frequency (Hz)	120	1k	10k	100k≤
6.8μF	0.42	0.60	0.80	1.00
12~39μF	0.45	0.75	0.90	1.00
47~180μF	0.50	0.80	0.95	1.00
220~820μF	0.60	0.85	0.95	1.00

◆ **MARKING**



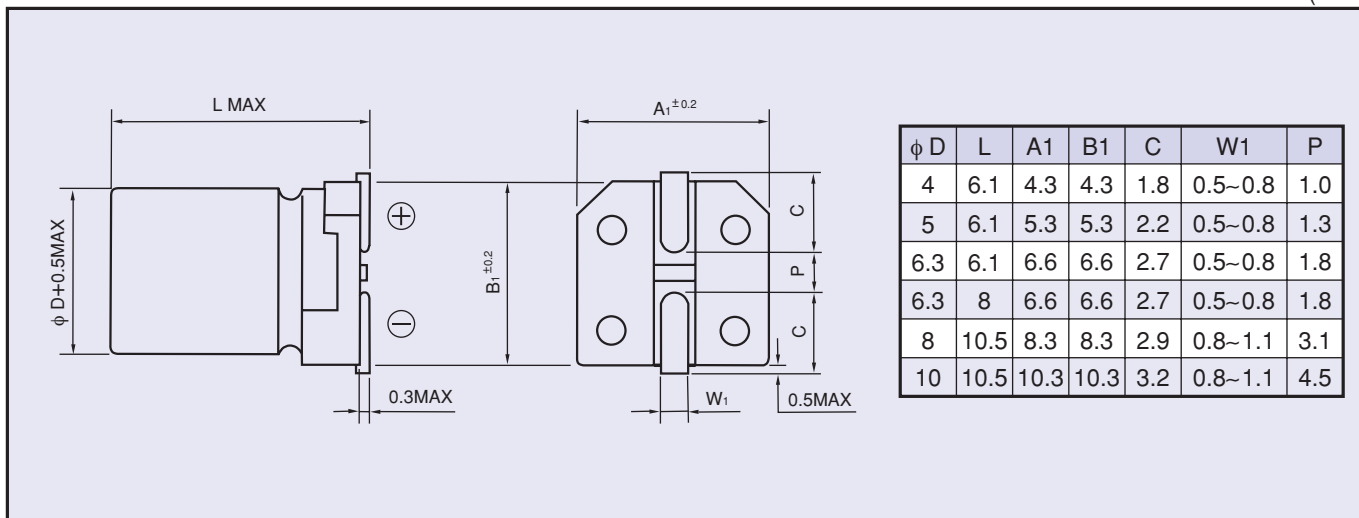
◆ **PART NUMBER**





◆ DIMENSIONS

(mm)



◆ TANDARD SIZE

Size φ D×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	Z	Size	Ripple	Z	Size	Ripple	Z
18							4×6.1	100	1.15
22				4×6.1	100	1.15			
27	4×6.1	100	1.15						
39							5×6.1	190	0.55
47				5×6.1	190	0.55			
56	5×6.1	190	0.55						
68							6.3×6.1	280	0.30
82				6.3×6.1	280	0.30			
100	6.3×6.1	280	0.30				6.3×8	350	0.24
120				6.3×8	350	0.24			
150	6.3×8	350	0.24						
220							8×10.5	680	0.12
330				8×10.5	680	0.12			
390							10×10.5	950	0.075
470	8×10.5	680	0.12						
560				10×10.5	950	0.075			
820	10×10.5	950	0.075						

Cap(μF) \ WV (V.DC)	25 (1E)			35 (1V)		
	Size	Ripple	Z	Size	Ripple	Z
6.8				4×6.1	90	1.40
12	4×6.1	100	1.15			
15				5×6.1	190	0.55
27	5×6.1	190	0.55	6.3×6.1	280	0.30
39				6.3×8	350	0.24
47	6.3×6.1	280	0.30			
68	6.3×8	350	0.24			
120				8×10.5	680	0.12
180	8×10.5	680	0.12			
220				10×10.5	950	0.08
270	10×10.5	950	0.08			