

**TLV SERIES**
**NEW**
**105°C Long Life, Low Impedance, Lead Free Reflow Soldering.**
**FEATURES**

- Load Life 105°C 5000Hrs.
- Reflow soldering is available.
- Large can-size SMD.
- RoHS compliance.


**SPECIFICATIONS**

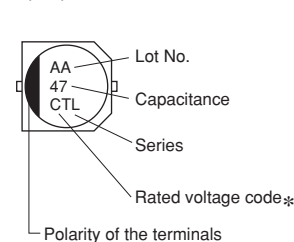
Items	Characteristics																												
Category Temperature Range	-55~+105°C																												
Rated Voltage Range	6.3~35V.DC																												
Capacitance Tolerance	±20% (20°C, 120Hz)																												
Leakage Current(MAX)	I=0.01CV or 3 μA whichever is greater. (After 2 minutes) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)																												
(tanδ) Dissipation Factor(MAX)	<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 δ</td> <td>0.26</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </table> <p>When rated capacitance is over 1000 μF, tanδ shall be added 0.02 to the listed value with Increase of over 1000 μF.</p>	Rated Voltage (V)	6.3	10	16	25	35	tan δ	0.26	0.19	0.16	0.14	0.12																
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tan δ	0.26	0.19	0.16	0.14	0.12																								
Endurance	<p>After applying rated voltage with rated ripple current for 5000 hrs at 105°C, the capacitors shall Meet the following requirements.</p> <table border="1"> <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. (φ 8,φ 10 : 300%)</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. (φ 8,φ 10 : 300%)	Leakage Current	Not more than the specified value.																						
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Low Temperature Stability Impedance Ratio(MAX)	<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> <td>(120Hz)</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></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></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></td> </tr> </table>	Rated Voltage (V)	6.3	10	16	25	35	(120Hz)	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	
Rated Voltage (V)	6.3	10	16	25	35	(120Hz)																							
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																								

**MULTIPLIER FOR RIPPLE CURRENT**

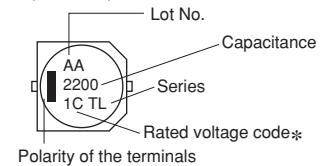
Frequency (Hz)		120	1K	10K	100K ≤
Coefficient	47~150	0.50	0.80	0.95	1.00
	220~10000	0.60	0.85	0.95	1.00

**MARKING**

&lt;φ 8,φ 10&gt;



&lt;φ 12.5~φ 18&gt;



\* Voltage code

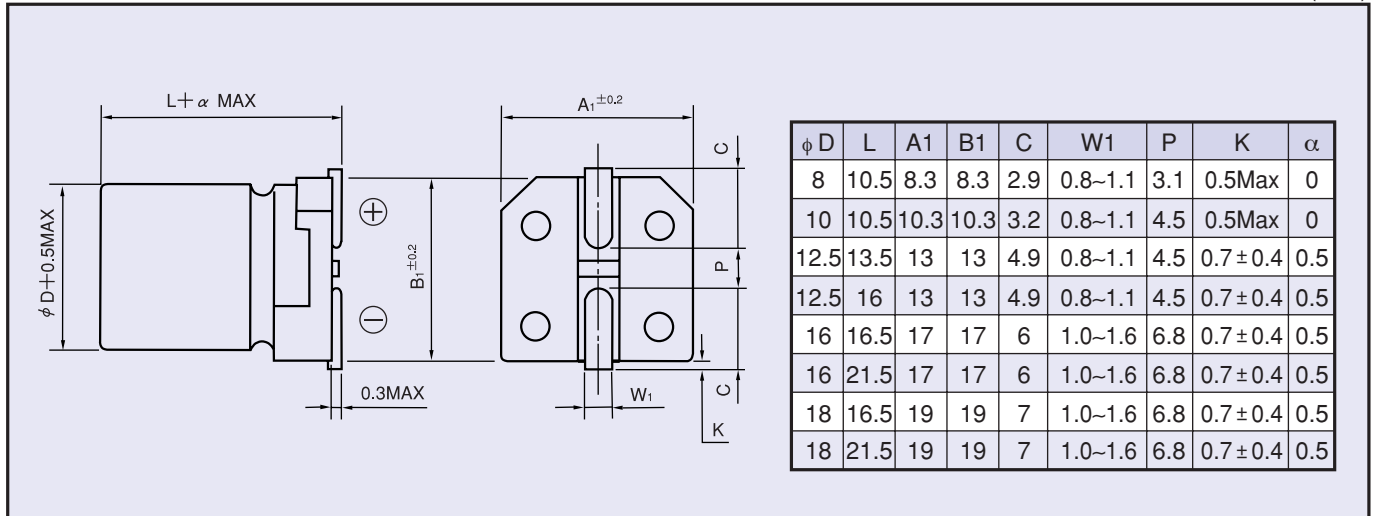
Rated Voltage (V)	6.3	10	16	25	35
φ D ≤ 10	j	A	C	E	V
φ D ≥ 12.5	0J	1A	1C	1E	1V

**PART NUMBER**

□□□	TLV	□□□□□	□	□□□	□□	DxL
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

**◆ DIMENSIONS**

(mm)


**◆ STANDARD SIZE**

 Size  $\phi DXL$ (mm), Ripple current(mA r.m.s./105°C,100kHz), Impedance( $\Omega$ Max/20°C,100kHz)

WV (V.DC)	Cap ( $\mu$ F)	Size ( $\phi DXL$ )	Ripple	Z	WV (V.DC)	Cap ( $\mu$ F)	Size ( $\phi DXL$ )	Ripple	Z	
6.3 (0J)	2200	12.5×13.5	1100	0.065	25 (1E)	220	8×10.5	600	0.16	
	3300	12.5×16	1400	0.055		330	8×10.5	600	0.16	
	4700	16×16.5	1800	0.045		470	10×10.5	850	0.08	
	6800	16×21.5	2330	0.029		1000	12.5×13.5	1100	0.065	
	10000	18×21.5	2640	0.028		1500	16×16.5	1800	0.045	
10 (1A)	1000	10×10.5	850	0.08		2200	18×16.5	2060	0.044	
	2200	12.5×16	1400	0.055		3300	18×21.5	2640	0.028	
	3300	16×16.5	1800	0.045		35 (1V)	100	8×10.5	600	0.16
	4700	18×16.5	2060	0.044			100	10×10.5	850	0.08
	6800	18×21.5	2640	0.028			150	8×10.5	600	0.16
16 (1C)	470	8×10.5	600	0.16	220		8×10.5	600	0.16	
	680	10×10.5	850	0.08	330		10×10.5	850	0.08	
	1500	12.5×13.5	1100	0.065	680		12.5×13.5	1100	0.065	
	2200	16×16.5	1800	0.045	1000		16×16.5	1800	0.045	
	3300	18×16.5	2060	0.044	1500		18×16.5	2060	0.044	
	4700	16×21.5	2330	0.029	2200		16×21.5	2330	0.029	