TLV SERIES

Load Life : 105℃ 5000 hours, Low Impedance, Lead Free Reflow Soldering

◆FEATURES

- ·Load Life 105℃ 5000 hours.
- ·Lead free Reflow soldering is available.
- ·Large can-size SMD.
- ·Prescribe Impedance value at 100kHz.
- ·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)	(20℃,120Hz)
Endurance	After applying rated voltage for 5000 hours at 105℃, the capacitor shall meet the following requirements.
Low Temperature Stability Impedance Ratio(MAX)	(120Hz)

Rated Voltage (Vdc)	6.3	10	16	25	35
tanδ	0.26	0.19	0.16	0.14	0.12

When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.

Capacitance Change	Within ±30% of the initially measured value.
Dissipation Factor	Not more than 200% of the specified value. (φ8.φ10:300%)
Leakage Current	Not more than the specified value.

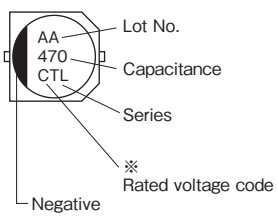
Rated Voltage (Vdc)	6.3	10	16	25	35
Z(−25℃)/Z(20℃)	2	2	2	2	2
Z(−40℃)/Z(20℃)	3	3	3	3	3
Z(−55℃)/Z(20℃)	4	4	4	3	3

◆MULTIPLIER FOR RIPPLE CURRENT

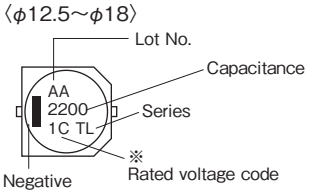
Frequency(Hz)		120	1k	10k	100k≦
Coefficient	100～150μF	0.50	0.80	0.95	1.00
	220～10000μF	0.60	0.85	0.95	1.00

◆MARKING

〈φ8,φ10〉



〈φ12.5～φ18〉



※Voltage code

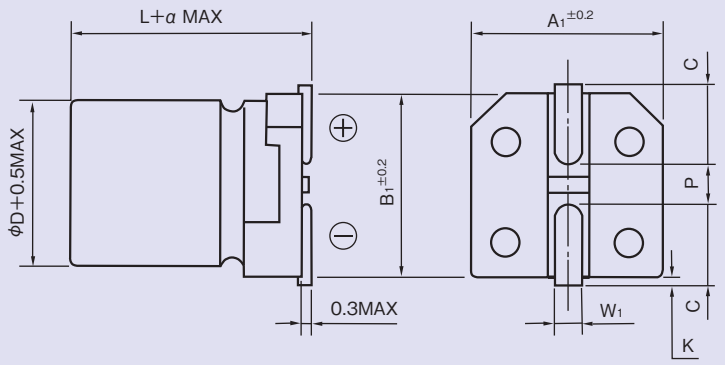
Rated Voltage (Vdc)		6.3	10	16	25	35
Voltage code	φD≦10	j	A	C	E	V
	φD≧12.5	0J	1A	1C	1E	1V

◆PART NUMBER

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

◆DIMENSIONS

(mm)



ϕD	L	A1	B1	C	W1	P	K	α
8	10.5	8.3	8.3	2.9	0.8~1.1	3.1	0.5Max	0
10	10.5	10.3	10.3	3.2	0.8~1.1	4.5	0.5Max	0
12.5	13.5	13	13	4.9	0.8~1.1	4.5	0.7±0.4	0.5
12.5	16	13	13	4.9	0.8~1.1	4.5	0.7±0.4	0.5
16	16.5	17	17	6	1.0~1.6	6.8	0.7±0.4	0.5
16	21.5	17	17	6	1.0~1.6	6.8	0.7±0.4	0.5
18	16.5	19	19	7	1.0~1.6	6.8	0.7±0.4	0.5
18	21.5	19	19	7	1.0~1.6	6.8	0.7±0.4	0.5

◆STANDARD SIZE

Size ϕDXL(mm), Rated Ripple Current(mA r.m.s./105℃,100kHz), Impedance(Ω MAX/20℃, 100kHz)

Vdc	Cap (μF)	Size (ϕDXL)	Ripple	Impedance
6.3	2200	12.5×13.5	1100	0.065
	3300	12.5×16	1400	0.055
	4700	16×16.5	1800	0.045
	6800	16×21.5	2330	0.029
	10000	18×21.5	2640	0.028
10	1000	10×10.5	850	0.08
	2200	12.5×16	1400	0.055
	3300	16×16.5	1800	0.045
	4700	18×16.5	2060	0.044
	6800	18×21.5	2640	0.028
16	470	8×10.5	600	0.16
	680	10×10.5	850	0.08
	1500	12.5×13.5	1100	0.065
	2200	16×16.5	1800	0.045
	3300	18×16.5	2060	0.044
	4700	16×21.5	2330	0.029

Vdc	Cap (μF)	Size (ϕDXL)	Ripple	Impedance
25	220	8×10.5	600	0.16
	330	8×10.5	600	0.16
	470	10×10.5	850	0.08
	1000	12.5×13.5	1100	0.065
	1500	16×16.5	1800	0.045
	2200	18×16.5	2060	0.044
	3300	18×21.5	2640	0.028
35	100	8×10.5	600	0.16
	100	10×10.5	850	0.08
	150	8×10.5	600	0.16
	220	8×10.5	600	0.16
	330	10×10.5	850	0.08
	470	12.5×13.5	1100	0.065
	680	12.5×13.5	1100	0.065
	1000	16×16.5	1800	0.045
	1500	18×16.5	2060	0.044
	2200	16×21.5	2330	0.029