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.
- ·AEC-Q200

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

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

Endurance

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.

Low Temperature Stability Impedance Ratio(MAX)

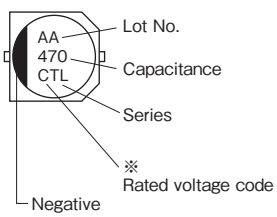
Rated Voltage (Vdc)	6.3	10	16	25	35
Z(−25℃)/Z(20℃)	2	2	2	2	2
Z(−40℃)/Z(20℃)	3	3	3	3	3
Z(−55℃)/Z(20℃)	4	4	4	3	3

◆MULTIPLIER FOR RIPPLE CURRENT

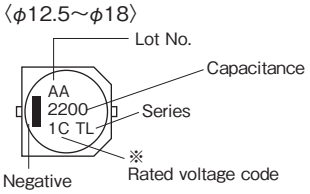
Frequency(Hz)		120	1k	10k	100k≦
Coefficient	100～150μF	0.50	0.80	0.95	1.00
	220～10000μF	0.60	0.85	0.95	1.00

◆MARKING

〈φ8,φ10〉



〈φ12.5～φ18〉



※Voltage code

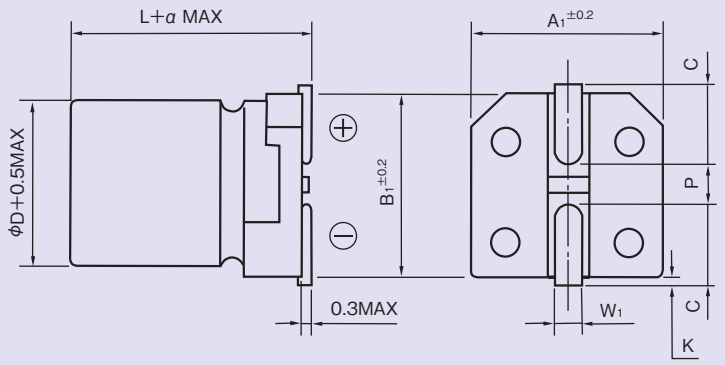
Rated Voltage (Vdc)		6.3	10	16	25	35
Voltage code	φD≦10	j	A	C	E	V
	φD≧12.5	0J	1A	1C	1E	1V

◆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