CLX Series

• 125℃ 2,000~4000Hrs assured.

Solvent-proof

- Vertical SMD type.
- Wide Temp., Low ESR.
- Suitable to fit for automotive equipment.
- RoHS compliant.
- Halogen-free capacitors are also available.

CLZ → CLX
Low ESR

• AEC-Q200 compliant : Please contact us for more details, test data, information.

SPECIFICATIONS

Item	Characteristics
Rated Voltage Range	10 ~ 50 V_{DC}
Operating Temperature Range	-40 ~ +125 ℃
Capacitance Tolerance	±20%(M)
Leakage Current	I=0.01CV(μA) or 3μA, whichever is greater. Where, I:Max. Leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(V_{DC}) (at 20℃, 2 minutes)
Dissipation Factor(Tanδ)	Rated voltage(V_{DC}): 10 / 16 / 25 / 35 / 50 Tanδ(Max.): 0.24 / 0.20 / 0.16 / 0.14 / 0.16 (at 20℃, 120Hz)
Temperature Characteristics (Max. Impedance ratio)	Rated voltage(V_{DC}): 10 / 16 / 25 / 35, 50 Z(-25℃)/Z(+20℃): 4 / 3 / 2 / 2 Z(-40℃)/Z(+20℃): 10 / 8 / 6 / 4 (at 120Hz)
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied with the following conditions. H10:125℃, 2,000hours, J10:125℃, 3,000hours, K14:125℃, 4,000hours. Capacitance change ≦ ±30% of the initial value Tanδ ≦ 300% of the initial specified value Leakage current ≦ The initial specified value
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 125℃ without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≦ ±30% of the initial value Tanδ ≦ 300% of the initial specified value Leakage current ≦ The initial specified value
Others	Satisfied characteristics KS C IEC 60384-4

PART NUMBERING SYSTEM

CLX 16 VC 330 M J10 TP

- TP: With tape
- J10: Case code
- M: Capacitance tolerance(±20%)
- 330: Nominal capacitance code (ex. 0.1μF:R1, 1.0μF:1, 4.7μF:4R7, 10μF:10)
- VC: Lead type
- 16: Rated voltage
- CLX: Series name

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Size code \ Freq.(Hz)	120	1K	10K	100K
H10 ~ J10	0.93	0.97	1.00	1.00
K14	0.50	0.85	0.94	1.00

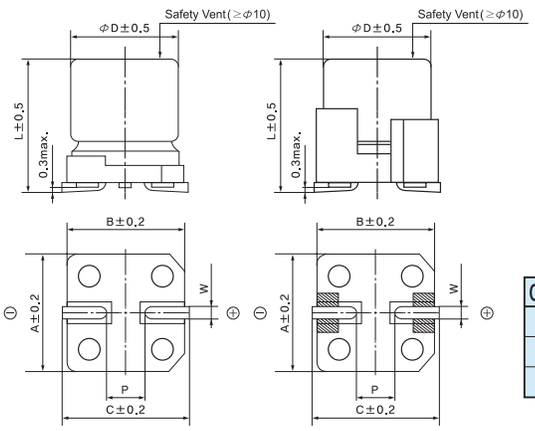
DIMENSIONS OF CLX Series

Unit(mm)

DIMENSIONS

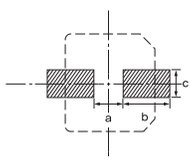
● Vibration Resistance

〈Size code:H10～K14〉 〈Size code:H10～K14〉



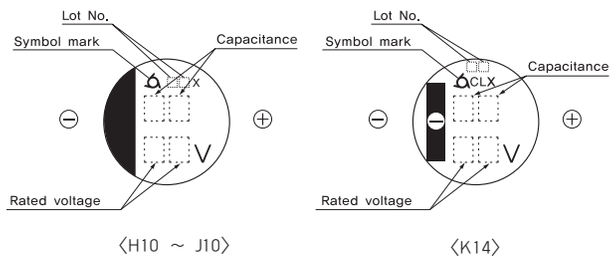
▨ : Dummy terminals

Recommended solder land on PC board



▨ : Solder land on PC board

MARKING



〈H10 ～ J10〉 〈K14〉

Case code	ØD	L	A	B	C	W	P	a	b	c	a	b	c
H10	8	10	8.3	8.3	9.0	0.7～1.1	3.1	3.1	4.2	2.2	3.1	4.2	3.5
J10	10	10	10.3	10.3	11.0	0.7～1.1	4.5	4.5	4.4	2.2	4.5	4.4	3.5
K14	12.5	13.5	13.0	13.0	13.7	1.0～1.3	4.2	4.0	5.7	2.5	3.4	6.3	9.3

● Vibration Resistance

RATINGS OF CLX Series

VDC / μF	10				16				25				35				50			
33																	H10	0.53	8.0	192
47													H10	0.30	4.5	264	J10	0.38	5.7	296
100									H10	0.30	4.5	264	H10	0.30	4.5	264	J10	0.38	5.7	296
220	H10	0.30	4.5	264	H10	0.30	4.5	264	J10	0.23	3.5	355	J10	0.23	3.5	355	K14	0.18	2.7	650
330	J10	0.23	3.5	355	J10	0.23	3.5	355	K14	0.11	1.7	950	K14	0.11	1.7	950				
470	J10	0.23	3.5	355	K14	0.11	1.7	950												
1,000	K14	0.11	1.7	950																

Rated Ripple Current (mArms/ 125℃, 100kHz)
ESR (Ω max./-40℃, 100kHz)
ESR (Ω max./20℃, 100kHz)
Case code