

TLB Series

• 105°C 7,000Hrs assured.

- Non-solvent proof.
- Long Life.
- For SMPS, Inverter.
- RoHS compliant.
- Halogen-free capacitors are also available.
- AEC-Q200 compliant : Please contact us for more details, test data, information.



SPECIFICATIONS

Item	Characteristics						
Rated Voltage Range	160 ~ 500 V _{DC}						
Operating Temperature Range	-25 ~ +105°C						
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)						
Leakage Current	I = 0.02CV(µA) or 3mA, whichever is smaller. Where, I: Max. Leakage current(µA), C:Nominal capacitance(µF), V:Rated voltage(V _{DC}) (at 20°C, 5 minutes)						
※Dissipation Factor(Tanδ)	<table border="1"> <tr> <td>Rated voltage(V_{DC})</td> <td>160 ~ 500</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.20</td> </tr> </table> (at 20°C, 120Hz)	Rated voltage(V _{DC})	160 ~ 500	Tanδ(Max.)	0.20		
Rated voltage(V _{DC})	160 ~ 500						
Tanδ(Max.)	0.20						
Temperature Characteristics (Max. Impedance ratio)	<table border="1"> <tr> <td>Rated voltage(V_{DC})</td> <td>160 ~ 400</td> <td>450 ~ 500</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>8</td> </tr> </table> (at 120Hz)	Rated voltage(V _{DC})	160 ~ 400	450 ~ 500	Z(-25°C)/Z(20°C)	4	8
Rated voltage(V _{DC})	160 ~ 400	450 ~ 500					
Z(-25°C)/Z(20°C)	4	8					
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 7,000 hours at 105°C. Capacitance change ≤ ±25% of the initial value Tan δ ≤ 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°C after the exposing them at 105°C for 1,000 hours 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 ≤ ±20% of the initial value Tan δ ≤ 150% of the initial specified value Leakage current ≤ The initial specified value						
Others	Satisfied characteristics KS C IEC 60384-4						

※ For capacitors with CV products > 100,000 higher Tanδ value may apply.
 When the capacitance exceeds 1,000µF, 0.01 shall be added every 1,000µF increase.

RATED RIPPLE CURRENT

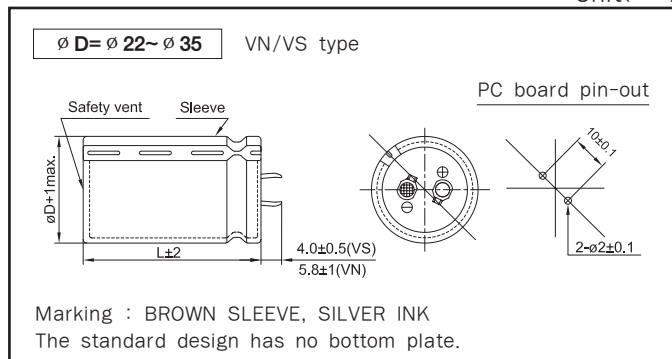
When capacitors are operated in any other conditions at 120Hz the maximum ripple current must be multiplied by the figure shown in the table.

Frequency multiplying factor

V _{DC} \ Freq.(Hz)	60	120	300	1k	10k~
160~250V _{DC}	0.81	1.00	1.17	1.32	1.45
350~500V _{DC}	0.77	1.00	1.16	1.30	1.41

DIMENSIONS OF TLB Series

Unit(mm)



RATINGS OF TLB Series

μF	V _{DC} ∅ D	160				200				250			
		22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
220						22 × 25 0.90				22 × 30 0.95			
270						22 × 30 1.05				22 × 35 1.08	25.4 × 25 1.05		
330		22 × 25 1.11				22 × 30 1.16	25.4 × 25 1.16			22 × 40 1.22	25.4 × 30 1.19		
390		22 × 30 1.26				22 × 35 1.29	25.4 × 30 1.29			22 × 45 1.36	25.4 × 35 1.35	30 × 25 1.32	
470		22 × 30 1.39	25.4 × 25 1.38			22 × 40 1.46	25.4 × 30 1.42	30 × 25 1.45		22 × 50 1.49	25.4 × 40 1.52	30 × 30 1.49	
560		22 × 35 1.55	25.4 × 30 1.55			22 × 45 1.63	25.4 × 35 1.62	30 × 30 1.62			25.4 × 45 1.70	30 × 35 1.69	
680		22 × 40 1.75	25.4 × 35 1.78	30 × 25 1.74			25.4 × 40 1.83	30 × 30 1.79			25.4 × 50 1.91	30 × 40 1.93	35 × 30 1.90
820		22 × 50 1.97	25.4 × 40 2.01	30 × 30 1.96			25.4 × 45 2.06	30 × 35 2.04				30 × 45 2.19	35 × 35 2.13
1,000			25.4 × 45 2.27	30 × 35 2.26				30 × 45 2.42	35 × 30 2.30				35 × 40 2.46
1,200			25.4 × 50 2.54	30 × 40 2.56	35 × 30 2.52			30 × 50 2.71	35 × 45 2.70				35 × 50 2.86
1,500				30 × 45 2.96	35 × 35 2.89				35 × 45 3.11				
1,800				30 × 50 3.32	35 × 40 3.30				35 × 50 3.50				
2,200					35 × 50 3.87								

μF	V _{DC} ∅ D	350				400				450			
		22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
47										22 × 25 0.46			
56										22 × 30 0.52			
68						22 × 25 0.55				22 × 30 0.58	25.4 × 25 0.58		
82						22 × 30 0.63				22 × 35 0.65	25.4 × 30 0.65		
100		22 × 25 0.67				22 × 30 0.70	25.4 × 25 0.70			22 × 40 0.74	25.4 × 30 0.72	30 × 25 0.73	
120		22 × 30 0.77	25.4 × 25 0.76			22 × 35 0.79	25.4 × 30 0.79			22 × 45 0.83	25.4 × 35 0.82	30 × 30 0.82	
150		22 × 35 0.88	25.4 × 30 0.88			22 × 40 0.90	25.4 × 30 0.88	30 × 25 0.90			25.4 × 40 0.94	30 × 35 0.96	
180		22 × 40 0.99	25.4 × 30 0.96	30 × 25 0.98		22 × 45 0.99	25.4 × 35 1.01	30 × 30 1.01			25.4 × 45 1.06	30 × 35 1.05	35 × 30 1.07
220		22 × 45 1.12	25.4 × 35 1.11	30 × 30 1.11			25.4 × 40 1.14	30 × 35 1.16				30 × 40 1.20	35 × 35 1.21
270			25.4 × 40 1.26	30 × 35 1.28			25.4 × 50 1.32	30 × 40 1.33	35 × 30 1.31			30 × 50 1.41	35 × 40 1.40
330			25.4 × 45 1.40	30 × 35 1.42	35 × 30 1.45			30 × 45 1.52	35 × 35 1.48				35 × 45 1.60
390				30 × 40 1.60	35 × 35 1.61			30 × 50 1.69	35 × 40 1.68				35 × 50 1.79
470				30 × 50 1.86	35 × 40 1.85				35 × 45 1.91				
560					35 × 40 2.02				35 × 50 2.14				
680					35 × 50 2.36								

Case Size ∅D×L (mm)
 Rated Ripple Current (Arms/105°C, 120Hz)

RATINGS OF TLB Series

μF	V _{DC} ϕ D	500			
		22	25.4	30	35
56	22 × 35 0.33				
68	22 × 40 0.39	25.4 × 30 0.37			
82	22 × 45 0.45	25.4 × 35 0.44			
100	22 × 50 0.52	25.4 × 40 0.51	30 × 30 0.50		
120		25.4 × 45 0.59	30 × 35 0.58		
150		25.4 × 50 0.69	30 × 40 0.69	35 × 30 0.67	
180			30 × 45 0.80	35 × 35 0.79	
220			30 × 50 0.92	35 × 40 0.92	
270			30 × 60 1.11	35 × 50 1.12	
330			Case Size ϕ D × L (mm) → Rated Ripple Current (Arms/105°C, 120Hz) →	35 × 60 1.34	