

# TLX Series

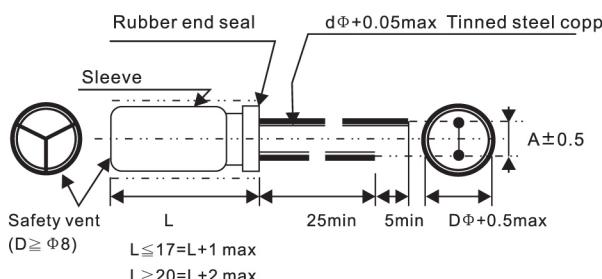
- 105°C, 2000~5000 hours LOW ESR series (紋波疊加)

- SPECIFICATIONS



Items	Characteristics							
Category	- 40 to +105°C							
Temperature Range	6.3V to 63Vdc							
Rated Voltage Range	(at 20°C ,120Hz)							
Capacitance Tolerance	± 20% (M)							
Leakage Current	$I=0.01CV$ or $3\mu A$ , whichever is greater. Where, I :Max. Leakage current ( $\mu A$ ). C: Nominal capacitance ( $\mu F$ ) .V :Rated voltage(V) (at 20°C , after 2 minutes)							
Dissipation Factor (tan δ)	Rated voltage (Vdc)	6.3V	10V	16V	25V	35V	50V	63V
	tan δ (Max.)	0.19	0.16	0.14	0.12	0.10	0.08	0.08
	(at 20°C ,120Hz)							
	For capacitance>1000uF.and 2% per another 1000uF							
Low Temperature Characteristics	Impedance ration max at 120Hz							
	Working voltage	6.3v	10v	16v	25v	35v	50v	63v
	Z-25°C/ Z+20°C	4	3	2	2	2	2	2
	Z-40°C/ Z+20°C	8	6	4	3	3	3	3
Load. Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the voltage is applied for the specified at 105°C							
	Capacitance change	$\leq \pm 20\%$ of the initial value						$\phi D$
	DF (tan δ )	$\leq 200\%$ of the initial specified value						$\phi 5\sim 6$ 2000h
	Leakage current	$\leq$ The initial specified value						$\phi 8$ 3000h
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.							
	Capacitance change	$\leq \pm 20\%$ of the initial value						$\phi 10\sim$ 5000h
	DF (tan δ )	$\leq 200\%$ of the initial specified value						
	Leakage current	$\leq$ The initial specified value						
Ripple Current Multiplier	Temperature coefficient							
	Temperature(°C)	~55	60	70	85	105		
	Factor	2.20	2.10	2.00	1.75	1.00		
	Frequency coefficient							
	cap freq	60	120	1k	10k	100k		
	~100	0.30	0.40	0.75	0.90	1.00		
	100~1000	0.40	0.50	0.85	0.94	1.00		
	1000up	0.50	0.75	0.90	0.95	1.00		

- Diagram: (Unit: mm)



Body Dia ΦD	5	6	8	10	13 $L \leq 21$	16	18
Lead Dia Φd		0.5		0.6	0.6	0.8	0.8
Lead Space A	2	2.5	3.5		5	7.5	7.5/10

◆ TLX series 105°C 長壽命,高紋波,低阻抗

● STANDARD RATING

Cap(μF)	Vdc	6.3v			10v		
		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)
100					5*11	210	0.55
220	6.3*11	320	0.58	6.3*11	340	0.22	
330	8*12	320	0.28	8*12	380	0.13	
470	8*12	640	0.20	8*12	640	0.09	
680	8*12	720	0.12	8*16	840	0.092	
820	8*16	850	0.095	8*20	920	0.085	
1000	8*16	1110	0.089	10*20	1060	0.070	
1200	10*17	1400	0.068	10*20	1290	0.039	
1500	10*20	1720	0.055	10*20	1450	0.040	
2200	10*25	1950	0.045	10*25/13*21	1580/1690	0.045/0.040	
3300	10*30	2250	0.045	10*30	1800	0.038	
4700	13*25	2450	0.038	13*30	2200	0.035	
6800	16*25	2750	0.035	16*32	2550	0.030	

Maximum Ripple Current:(105°C 100KHz)

Maximum Impedance:( 20°C 100KHz )

● STANDARD RATING

Cap(μF)	Vdc	16v			25v		
		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)
47					5*11	210	0.22
68	6.3*11	210	0.59	6.3*11	340	0.22	
100	6.3*11	340	0.42	6.3*11	340	0.22	
220	8*12	640	0.20	8*12	640	0.13	
330	8*12	640	0.13	8*16	840	0.087	
470	8*16	800	0.078	10*17	1050	0.066	
680	8*20	1050	0.070	10*20	1080	0.049	
820	10*17	1220	0.055	13*20	1450	0.045	
1000	10*25	1180	0.049	13*21	1450	0.039	
1200	10*25/13*21	1450/1550	0.043/0.040	13*25	1700	0.040	
1500	13*25	1650	0.040	13*25	1950	0.038	
2200	10*30	1920	0.030	13*30	2360	0.035	
3300	13*25	2450	0.035	16*32	2700	0.030	
4700	16*32	2550	0.030	18*32	2800	0.028	
6800	18*32	2800	0.028				

Maximum Ripple Current:(105°C 100KHz)

Maximum Impedance:( 20°C 100KHz )

Chip Type SMD	Miniature Type	General Purpose	High Frequency Low Impedance
High Voltage High Reliability	Non-polar Type	Large Size Snap-in	Large Size Screw
X Metallized Polypropylene Fine Capacitors			

◆ TLX series 105°C 長壽命,高紋波,低阻抗

● STANDARD RATING

Cap(μF)	Vdc	35v			50v		
		Item	Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	Case size D*L(mm)	Ripple Current (mA/ms)
22			5*11	210	0.58	6.3*11	180
33			5*11	210	0.58	6.3*11	290
47			6.3*11	340	0.22	8*12	550
68			6.3*11	340	0.22	8*12	550
100			8*12	640	0.13	8*12	550
220			10*17	800	0.089	10*20	880
330			10*17	1060	0.065	13*20	1200
470			10*20	1300	0.049	13*20	1400
680			13*20	1400	0.040	13*21	1550
820			13*21	1550	0.038	13*25	1700
1000			13*25	1700	0.031	16*25	1900
1200			13*25	1900	0.038	16*32	2100
1500			13*30	2100	0.035	16*36	2420
2200			16*25	2700	0.030		
3300			18*36	2800	0.028		

Maximum Ripple Current:(105°C 100KHz)

Maximum Impedance:( 20°C 100KHz )

● STANDARD RATING

Cap(μF)	Vdc	63v		
		Item	Case size D*L(mm)	Ripple Current (mA/ms)
22			6.3*11	115
33			6.3*11	115
47			8*12	230
68			8*12	230
100			10*15	280
220			10*25	650
330			13*21	710
470			13*25	820
680			16*25	1200
820			16*32	1350
1000			16*32	1450
1200			18*32	1680

Maximum Ripple Current:(105°C 100 KHz)

Maximum Impedance:( 20°C 100KHz )