

FEATURES

- Small size and low-resistance
- Quick charge & discharge
- RoHS compliant
- UL recognized 

POWERBURST[®]
ULTRACAPACITORS

APPLICATIONS

- Pulse power demand
- Hybrid battery packs
- Portable Electronic Devices



PART NUMBERING

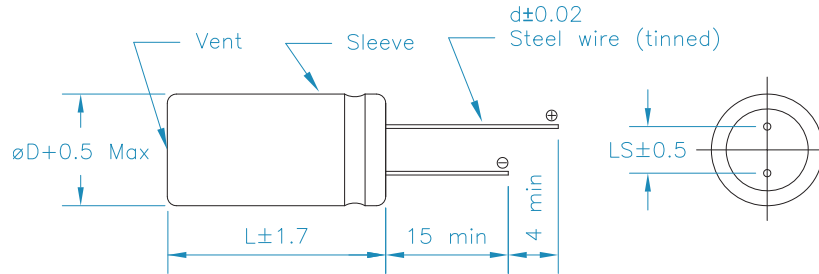
Part Number Example: TPL-4.0/10X20F				
TPL	-	4.0	/	10X20 F
Type		Capacitance Code (F)	Size (D X L)	RoHs Compliant

SPECIFICATIONS

Item	Performance		
Operating temperature	-40°C to +65°C		
Storage temperature	-40°C to +70°C		
Rated voltage	2.7 VDC		
Surge voltage	2.85 VDC		
Capacitance range	0.5F to 100.0F		
Capacitance tolerance	±20%		
Characteristics at low temperature	Capacitance Change	Within ±5% of initial measured value at +25°C(-40°C to +65°C)	
	Internal resistance	Within ±50% of initial measured value at +25°C(at -40°C)	
Lifetime at 25°C	10 years	Capacitance change	±30 % of initial rated value
		Internal resistance	Within 2 times of initial specified value
Cycle life at 25°C	500,000 cycles	Capacitance change	±30 % of initial rated value
		Internal resistance	Within 2 times of initial specified value
Endurance	After 1000 hours. application of 2.7V DC at 65°C, the capacitor shall meet the following limits:		
	Capacitance change	±30% of initial rated value	
	Internal resistance	Within 2 times of initial specified value	
Shelf life	After 1000 hours storage, at 70°C without load, the capacitor shall meet the specified endurance limits		

DIMENSIONS

Units = mm



STANDARD PRODUCTS

Part Numbers	CAP. (F)	ESR/DC (mΩ)	ESR/AC 1kHz (mΩ)	Leakage Current (mA) (72 hrs @ 25C)	Size (mm)				Rated Voltage (VDC)	Typical Pkg. Qty.	Weight/unit (grams)
					D	L	d	LS			
TPL-0.5/6X9F*	0.5	1550	600	0.002	6.3	9	0.5	2.5	2.7	200	0.7
TPL-0.5/8X12F	0.5	1850	700	0.002	8	12	0.6	3.5	2.7	200	1
TPL-1.0/6X15F*	1	650	330	0.006	6.3	15	0.5	2.5	2.7	200	1
TPL-1.0/8X12F	1	700	315	0.006	8	12	0.6	3.5	2.7	200	1.1
TPL-1.2/6X15F*	1.2	650	330	0.006	6.3	15	0.5	2.5	2.7	200	1
TPL-1.5/8X14F	1.5	430	190	0.008	8	14	0.6	3.5	2.7	200	1.2
TPL-2.0/8X16F	2	380	190	0.010	8	16	0.6	3.5	2.7	200	1.3
TPL-3.3/8X20F	3.3	300	150	0.012	8	20	0.6	3.5	2.7	200	1.7
TPL-3.3/10X20F	3.3	290	150	0.012	10	20	0.6	5.0	2.7	100	2
TPL-4.0/10X20F	4	205	105	0.014	10	20	0.6	5.0	2.7	100	2.1
TPL-5.0/10X20F	5	170	100	0.015	10	20	0.6	5.0	2.7	100	2.3
TPL-6.0/10X20F	6	130	70	0.012	10	20	0.6	5.0	2.7	100	2.5
TPL-6.0/8X28F	6	150	85	0.012	8	28	0.6	3.5	2.7	100	2.4
TPL-8.0/10X25F	8	100	60	0.020	10	25	0.6	5.0	2.7	100	3
TPL-10/10X30F	10	75	50	0.030	10	30	0.6	5.0	2.7	100	4
TPL-15/12X31F	15	60	35	0.035	12.5	31.5	0.8	5.3	2.7	50	5.3
TPL-22/12X35F	22	45	30	0.045	12.5	35.5	0.8	5.3	2.7	50	6.5
TPL-28/12X40F	28	38	25	0.060	12.5	40	0.8	5.0	2.7	50	7
TPL-30/16X31F	30	35	25	0.065	16	31.5	0.8	7.5	2.7	50	8.5
TPL-60/18X45F	60	20	14	0.100	18	45	1	7.5	2.7	50	16
TPL-70/18X45F	70	20	14	0.100	18	45	1	7.5	2.7	50	16
TPL-100/22X45F	100	15	10	0.260	22	45	1	9.5	2.7	25	23

*Not UL Recognized