

## TS series

Upgrade

**+105°C, High Ripple Current(高纹波), Long load life(长寿命)****Special Impedance(超低阻抗品)**

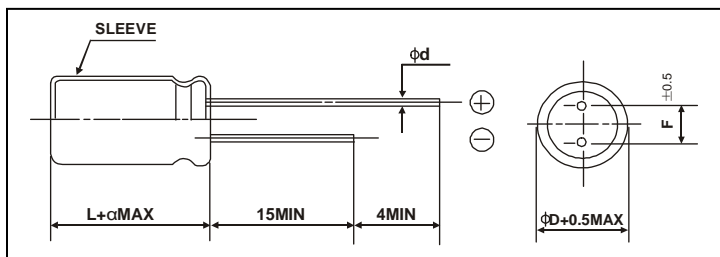
## ◆ FEATURES

- Load life: 105°C 3000 ~7000hours
- Ideally suited for use in switching power supply

## ◆ SPECIFICATIONS

Items	Characteristics							
Category Temperature Range	-40°C~+105°C							
Rated Voltage Range	6.3~50V.DC							
Nominal Capacitance Range	22~6800μ F							
Capacitance Tolerance	±20%(120Hz,+20°C)							
Leakage Current(MAX, 20°C)	I=0.01CV or 3(μA) after 2 minutes with rated working voltage							
Dissipation Factor(MAX) Tanδ (20°C,120Hz)	Rated Voltage(V)	6.3	10	16	25	35	50	
	Tanδ	0.22	0.19	0.16	0.14	0.12	0.10	
When nominal capacitance is over 1000μ F, tanδ shall be added 0.02 to the listed value with Increase of every 1000μ F								
Load Life	After applying rated voltage with max ripple current for 3000~7000hrs at 105°C, the capacitors shall meet the following requirements							
	Capacitance Change	Within ±25% of the initial value					ΦD	Load life
	Dissipation Factor	Not more than 200% of the specified value					Φ5~6.3	3000
	Leakage Current	Not more than the specified value					Φ8	4000
						Φ10	5000	
						Φ12.5~	7000	
Shelf Life	After Leaving capacitors under no load at 105°C for 1000hrs, they meet the characteristic requirements listed at right							
	Capacitance change	Within ±25% of the initial value						
	Tanδ	≤200% of initial specified value						
						Leakage current		
						Initial specified value or less		
Low Temperature Stability Impedance Rate(MAX)	Rated Voltage(V)	6.3	10	16	25	35	50	
	Z-25°C/Z+20°C	4	3	2	2	2	2	
	Z-40°C/Z+20°C	8	6	4	3	3	3	

## ◆ CASE SIZE TABLE



ΦD	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5		0.6		0.8		
α	L≤16:α =1.5				L≥20:α =2.0		

## ◆ RIPPLE CURRENT MULTIPLIER

Cap(μ F)	Frequency(Hz)			
	120	1K	10K	100k
≤180	0.40	0.75	0.90	1.00
220~560	0.50	0.85	0.94	1.00
680~1800	0.60	0.87	0.95	1.00
2200~3900	0.75	0.90	0.95	1.00
≥4700	0.85	0.95	0.98	1.00

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## ◆ STANDARD RATINGS

size:ΦD×L(mm)

Voltage(code)		6.3V(0J)			10V(1A)			16V(1C)		
Cap(μF)	Item Code	Size	Ripple Current	Impedance	Size	Ripple Current	Impedance	Size	Ripple Current	Impedance
100	107	5×11	200	0.50	5×11	250	0.30	6.3×11	360	0.20
220	227	6.3×11	345	0.30	6.3×11	405	0.13	8×12	570	0.10
330	337	6.3×11	405	0.13	8×12	640	0.105	8×12	760	0.072
470	477	8×12	635	0.10	8×12	760	0.072	10×13	1030	0.053
680	687	8×14	740	0.076	8×16	995	0.056	10×16	1430	0.038
1000	108	10×13	1030	0.053	10×16	1430	0.038	10×20	1820	0.023
1200	128	10×16	1430	0.038	10×20	1820	0.023	10×25	2150	0.022
1500	158	10×20	1820	0.023	10×25	2150	0.022	13×21	2360	0.021
2200	228	10×25	2150	0.022	13×21	2360	0.021	13×25	2770	0.018
3300	338	13×21	2360	0.021	13×25	2770	0.018	13×35	3400	0.015
4700	478	13×30	3290	0.016	13×35	3400	0.015			
6800	688	16×25	3460	0.016						

Maximum Allowable Ripple Current(mA rms) at 105°C 100KHz

Maximum Impedance(Ω) at 20°C 100KHZ

Voltage(code)		25V(1E)			35V(1V)			50V(1H)		
Cap(μF)	Item Code	Size	Ripple Current	Impedance	Size	Ripple Current	Impedance	Size	Ripple Current	Impedance
22	226							5×11	238	0.34
33	336				5×11	250	0.30	6.3×11	465	0.26
47	476	5×11	250	0.30	6.3×11	460	0.25	6.3×11	540	0.23
100	107	6.3×11	405	0.13	8×12	590	0.10	8×12	724	0.074
220	227	8×12	760	0.072	10×13	1030	0.053	10×16	1370	0.042
330	337	10×13	1030	0.053	10×16	1430	0.038	10×25	1870	0.028
470	477	10×16	1430	0.038	10×20	1820	0.023	13×21	2050	0.027
680	687	10×20	1820	0.023	13×21	2360	0.021	13×30	2860	0.021
1000	108	13×21	2360	0.021	13×25	2770	0.018	16×25	3010	0.021
1200	128	13×21	2490	0.020	13×30	3290	0.018			
1500	158	13×25	2770	0.018	13×35	3400	0.015			
2200	228	13×35	3400	0.015						
3300	338	16×25	3960	0.014						

Maximum Allowable Ripple Current(mA rms) at 105°C 100KHz

Maximum Impedance(Ω) at 20°C 100KHZ