

### F7 Series

105°C Super miniature size and 7mm high.  
Designed for use in VTRs, car radios, Car stereos,  
Micro-cassette tape recorders, pocket calculators and watches.

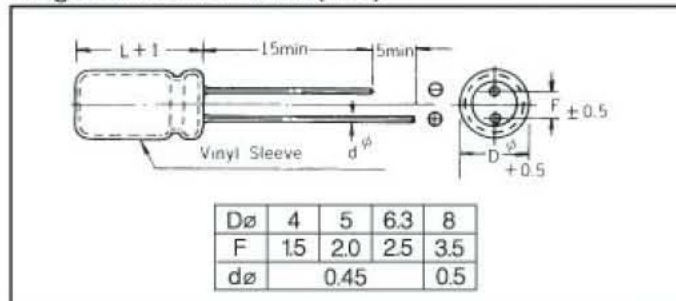


Dark Violet

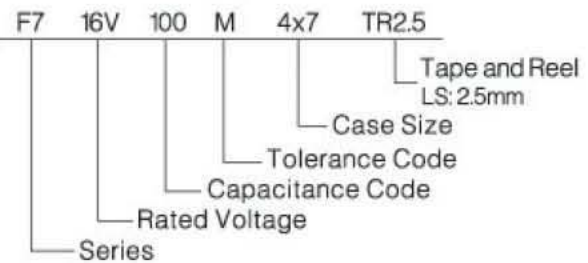
#### Characteristics

Voltage Range	6.3 ~ 50V						
Capacitance Range	0.1 ~ 470uF						
Temperature Range	-40 ~ + 105°C						
Capacitance Tolerance	-20 ~ +20% (at 20°C, 120Hz)						
Leakage Current	I = 0.01CV or 3uA, Whichever is greater (After 2 minutes)						
Dissipation Factor (tan δ)	Rated voltage	6.3V	10V	16V	25V	35V	50V
	tan δ (max.)	0.24	0.20	0.16	0.14	0.12	0.10
Low Temperature Stability	Impedance ratio at 120Hz						
	Rated voltage	6.3V	10V	16V	25V	35V	50V
	Z-25°C/Z 20°C	4	3	2	2	2	2
	Z-40°C/Z 20°C	10	8	6	4	4	3
Load Life	After 1000 hours application of rated voltage at 105°C the capacitor shall meet the following characteristics						
	Capacitance Range	Within ±20% of initial value					
	D.F. (tan δ)	200% or less of initial specified value					
	Leakage Current	Initial specified value or less					

#### Diagram of Dimensions (mm)



#### Part Numbering System



#### Case Size of Standard Products

WV uF	6.3	10	16	25	35	50
0.1						4x7
0.22						4x7
0.33						4x7
0.47						4x7
1						4x7
2.2						4x7
3.3						4x7
4.7						4x7
10			4x7	4x7	5x7	5x7
22			4x7	5x7	5x7	6.3x7
33		4x7	5x7	5x7	6.3x7	6.3x7
47	4x7	5x7	5x7	6.3x7	6.3x7	
100	5x7	5x7	6.3x7	6.3x7		
220	6.3x7	6.3x7	6.3x7			
330	6.3x7					
470						

#### Maximum E.S.R. (Ω20°C 120Hz) Maximum Ripple Current (mA rms 105°C 120Hz)

WV uF	6.3		10		16		25		35		50		
	ESR	IR	ESR	IR	ESR	IR	ESR	IR	ESR	IR	ESR	IR	
0.1											1348	2	
0.22											660	3	
0.33											438	4	
0.47											326	6	
1											162	10	
2.2											82.2	18	
3.3											48.5	20	
4.7											33.1	28	
10					26.30	25	23.80	30	18.90	33	16.1	40	
22					12.60	40	10.10	50	8.78	55	7.12	62	
33				10.02	42	8.14	58	7.30	62	6.98	64	4.93	88
47	8.36	50	6.81	60	5.81	72	5.18	83	4.23	96			
100	3.75	75	3.15	85	2.80	96	2.26	132					
220	2.98	112	1.51	179	1.29	192							
330	1.21	192											
470													