

USA

7mmL, For General Purposes

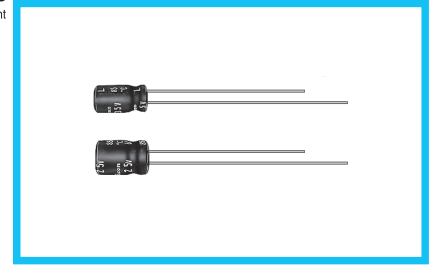
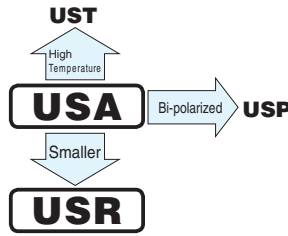
USR

7mmL, High CV



- Standard miniature series with 7mm height.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).

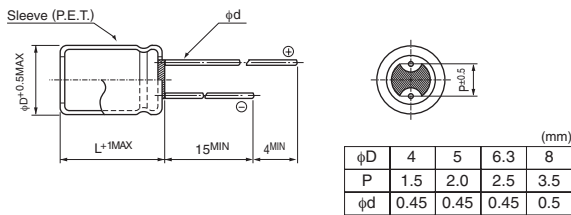
- Higher CV series with 7mm height.



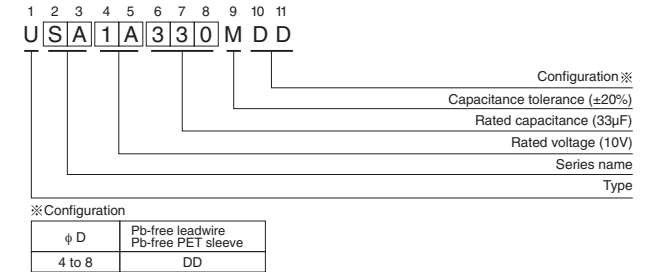
Specifications

Item	USA	USR						
Category Temperature Range	-40 to +85°C	-40 to +85°C						
Rated Voltage Range	6.3 to 50V	4 to 50V						
Rated Capacitance Range	1 to 220μF	1 to 470μF						
Capacitance Tolerance	±20% at 120Hz, 20°C	1 to 470μF						
Leakage Current	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.							
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C							
	Rated voltage (V)	4	6.3	10	16	25	35	50
Stability at Low Temperature	Measurement frequency : 120Hz							
	Rated voltage (V)	4	6.3	10	16	25	35	50
	Impedance ratio (MAX.)	Z-25°C / Z+20°C	6	4	3	2	2	2
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C.							
	Capacitance change	Within ±20% of the initial capacitance value						
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.							
	Leakage current							
Marking	Printed with white color letter on black sleeve.							

Radial Lead Type



Type numbering system (Example : USA : 10V 33μF)



Dimensions

Cap. (μF)	V(Code) Type·Series Code	4 (0G)		6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)	
		USR	USA	USR	USA	USR	USA	USR	USA	USR	USA	USR	USA	USR	
1	010													4 × 7	4 × 7
2.2	2R2													10	10
3.3	3R3													4 × 7	4 × 7
4.7	4R7													24	24
10	100							4 × 7	4 × 7	5 × 7	4 × 7	5 × 7	4 × 7	6.3 × 7	5 × 7
22	220		4 × 7	4 × 7	5 × 7	4 × 7	5 × 7	4 × 7	4 × 7	6.3 × 7	5 × 7	6.3 × 7	5 × 7	8 × 7	6.3 × 7
33	330	4 × 7	5 × 7	4 × 7	5 × 7	4 × 7	6.3 × 7	5 × 7	6.3 × 7	5 × 7	8 × 7	6.3 × 7			8 × 7
47	470	4 × 7	5 × 7	4 × 7	6.3 × 7	5 × 7	6.3 × 7	5 × 7	8 × 7	6.3 × 7			8 × 7		
100	101	5 × 7	6.3 × 7	5 × 7	8 × 7	6.3 × 7	8 × 7	6.3 × 7	8 × 7		8 × 7				
220	221	6.3 × 7	8 × 7	6.3 × 7		8 × 7		8 × 7							
330	331	8 × 7		8 × 7											
470	471	8 × 7													

Rated ripple current (mA rms) at 85°C 120Hz

Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.70	1.00	1.17	1.36	1.50

Please refer to page 20, 21, 22 about the formed or taped product spec. Please refer to page 4 for the minimum order quantity.