

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# **UMW**

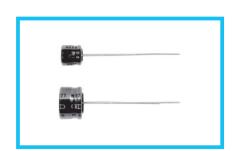
5mmL, For General Audio Equipment



- Acoustic series, with 5mm height.
- Compliant to the RoHS directive (2011/65/EU).

Values marked with an % in the dimension table are scheduled to be discontinued and are not recommended for new designs.

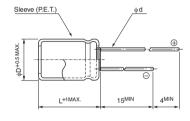




#### ■ Specifications

Item	Performance Characteristics											
Category Temperature Range	-40 to +85°C											
Rated Voltage Range	4 to 50V	4 to 50V										
Rated Capacitance Range	0.1 to 470μF											
Capacitance Tolerance	±20% at 120Hz, 20°C											
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.											
							Measureme	nt freque	ncy : 120	Hz at 20°C		
Tangent of loss angle (tan δ)	Rated voltage (V)	4	6.3	1	0	16	25	35		50	]	
,	tan δ (MAX.)	0.35	0.24	0.2	20	0.16	0.14	0.1	2	0.10		
	Measurement frequency : 120Hz											
	Rated	Rated voltage (V)			6.3	10	16	25	35	50	]	
Stability at Low Temperature	Impedance ratio	Z-25°C / Z+20°C		7	4	3	2	2	2	2		
	ZT / Z20 (MAX.)	Z-40°C /	15	8	6	4	4	3	3			
	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated						Capacitance change Within ±20% of the initial capacitance					
Endurance							tan δ			200% or less than the initial specified value		
	voltage is applied for 1000 hours at 85°C.  Leakage current  Less than or equal to the initial specified 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.											
	Printed with black color letter on gold sleeve.											

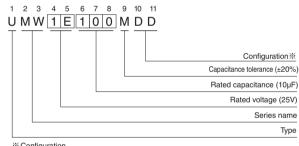
#### ■ Radial Lead Type





				(mm)
φD	4	5	6.3	8
Р	1.5	2.0	2.5	2.5
φd	0.45	0.45	0.45	0.45

### Type numbering system (Example : 25V $10\mu F$ )



Configuration										
φD	Pb-free leadwire Pb-free PET sleeve									
4 to 8	DD									

#### ■ Dimensions

	V	4		6.3		10		16		25		35		50	
Cap.(µF)	code	0G		OJ		1A		1C		1E		1V		1H	
0.1	0R1				1				1		-		1	<b>%4×5</b>	1.0
0.22	R22		i		i		İ		i				į	<b>%4×5</b>	2.0
0.33	R33								I I					<b>%4×5</b>	2.8
0.47	R47								!				-	%4×5	4.0
1	010		i		į		į						i	4×5	8.4
2.2	2R2		!		!		!		İ				1	4×5	13
3.3	3R3								!			4 × 5	15	4×5	17
4.7	4R7		i		i I		i i		-	4×5	16	4×5	18	5×5	20
10	100				!		!	4 × 5	23	5×5	27	5 × 5	29	6.3 × 5	33
22	220			4×5	28	5×5	33	5×5	¦ 37	6.3 × 5	42	6.3 × 5	46	8×5	52
33	330	4 × 5	28	5 × 5	37	5×5	41	6.3 × 5	49	6.3 × 5	52	8 × 5	62	8 × 5	71
47	470	4×5	33	5×5	45	6.3 × 5	52	6.3 × 5	58	8×5	70	8×5	80		
100	101	5 × 5	56	$6.3 \times 5$	70	8×5	80	8×5	¦ 92	8×5	110		i		
220	221	6.3 × 5	├ 96	8 × 5	¦ 110	8×5	135						1		
330	331	8×5	145	8×5	170				i					Case size $\phi$ D × L	Rated
470	471	8×5	185		i		İ		İ		-		i	(mm)	ripple

Rated ripple current(mArms) 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.