nichicon

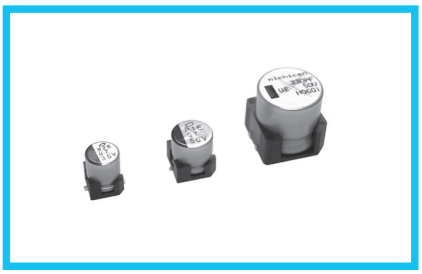
UUE

Chip Type, Vibration Resistance

For SMD | Long Life | Anti-Solvent Feature

- Chip type with load life of 2000 to 5000 hours at 125°C.
- Suited for automobile electronics where heavy duty services are indispensable.
- Compliant to the RoHS directive (2011/65/EU).
- AEC-Q200 compliant. Please contact us for details.

UUB → Vibration Resistance → UUE

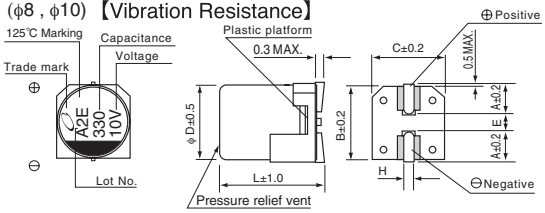


■Specifications

Item	Performance Characteristics							
Category Temperature Range	−55 to +125°C (φ12.5 to 18) −40 to +125°C (φ8, φ10)							
Rated Voltage Range	10 to 50V							
Rated Capacitance Range	33 to 4700μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater.							
Tangent of loss angle (tan δ)	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.							
	Rated voltage (V)		10	16	25	35	50	120Hz 20°C
	tan δ (MAX)	φ8, φ10	0.26	0.20	0.16	0.14	0.14	
		φ12.5 to φ18	0.22	0.18	0.16	0.14	0.12	
Stability at Low Temperature	Rated voltage (V)		10	16	25	35	50	120Hz
	Impedance ratio Z−40°C / Z+20°C (MAX)	φ8, φ10	10	8	6	4	4	
		φ12.5 to φ18	8	6	4	3	3	
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 5000 hours (2000 hours for φD = 8 and 10) at 125°C.							
	Capacitance change: Within ±30% of the initial capacitance value							
	tan δ: 300% or less than the initial specified value							
	Leakage current: Less than or equal to the initial specified value							
Shelf Life	After storing the capacitors under no load at 125°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.							
Marking	Black print on the case top.							

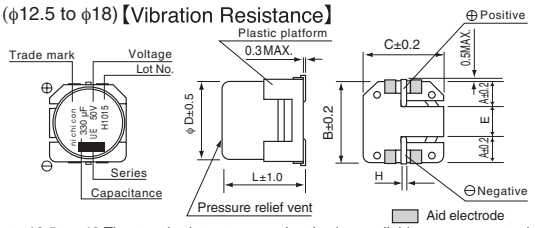
■Chip Type

(φ8 , φ10) 【Vibration Resistance】



※ φ8 to φ10 The standard structure product is also available upon request, please refer to page147(UUB).

(φ12.5 to φ18)【Vibration Resistance】



※ φ12.5 to φ18 The standard structure product is also available upon request, please ask for details.

Type numbering system (Example : 50V 330μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	U	E	1	H	3	3	1	M	N	S	1	M	S

Package code

Size	Package	Code
φ8,10	Taping	GS
φ12.5 to 18	Taping	MS
φ12.5 to 18	Tray	ZD

Size code
Configuration
Capacitance Tolerance (±20%)
Rated capacitance (330μF)
Rated voltage (50V)
Series name
Type

(mm)

φD	8	10	12.5	16	18
A	2.9	3.2	4.8	5.4	6.4
B	8.3	10.3	13.6	17.1	19.1
C	8.3	10.3	13.6	17.1	19.1
E	3.1	4.5	4.0	6.3	6.3
L	10	10	13.5,16	16.5,21.5	16.5,21.5
H	1.1 to 1.5	1.1 to 1.5	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4

■Dimensions

Cap.(μF) \ V	Code	10		16		25		35		50	
		1A		1C		1E		1V		1H	
33	330									8×10	90
47	470							8×10	100	10×10	130
100	101			8×10	140	8×10	140	10×10	150	12.5×13.5	500
220	221	8×10	140	10×10	190	10×10	190	12.5×13.5	550	16×16.5	850
330	331	10×10	190	12.5×13.5	750	12.5×13.5	750	16×16.5	1000	16×16.5	850
470	471	12.5×13.5	750	12.5×13.5	750	16×16.5	1000	16×16.5	1000	18×16.5	950
680	681	12.5×16	900	16×16.5	1000	18×16.5	1200	18×16.5	1200		
						▲ 16×21.5	1200				
1000	102	12.5×16	900	18×16.5	1200	18×21.5	1550				
								▲ 18×21.5	1400		
2200	222	18×16.5	1200	18×16.5	1200						
		▲ 16×21.5	1200								
3300	332	18×16.5	1200							Case size φD × L (mm)	Rated ripple
4700	472	18×21.5	1550								

※ In this case, 6 will be put at 12th digit of type numbering system, "▲"

Rated ripple current (mArms) at 125°C 100kHz

●Frequency coefficient of rated ripple current

φD	Frequency / Cap.(μF)	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
φ8, φ10	33 to 330	0.47	0.67	0.78	0.91	1.00
φ12.5 to φ18	100 to 680	0.53	0.67	0.82	0.89	1.00
	1000 to 4700	0.74	0.87	0.96	0.98	1.00

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.

CAT.8100H

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Nichicon:

UUD1V680MCL1GS UUG1C222MNL1ZD UUE1C101MNS1GS UUE1A221MNS1GS UUE1C102MNS1MS
UUE1A222MNS1MS UUE1V101MNS1GS UUE1E101MNS1GS UUE1E331MNS1MS UUE1H101MNS1MS
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